NOTE

Fair Value or Prudent Investment as a Rate Base in Pennsylvania? A Conflict Between the Public Utility Commission and the Superior Court

INTRODUCTION

The genesis of public utility rate-making lies in two economic facts. First, the services rendered by a utility are in universal and relatively unvarying demand. Second, public utilities are, either by virtue of special privileges granted by the state or because of prior appropriation of the market, monopolies within the area of their operation.[1] Before the advent of regulation, it was their practice to take advantage of this situation and reap enormous profits by charging as much as the traffic would bear. Inevitably the consumers rebelled and legislative action was taken to curb their exploitation.[2] In the early stages direct legislative rate-fixing was sustained by the courts.[3] However this proved unwieldy and the regulatory power was delegated to more efficient commissions.[4] The eagerness of the regulatory bodies to protect the consumer interests eventually produced a situation where the utility had lost most of its monopoly advantages and was, in many cases, less able to show a profit than enterprises whose prices were to some extent regulated by competition. It was at this point that the Supreme Court, in *Smyth v. Ames*,[5] declared that a utility was entitled to just compensation for the use of its property, saying:

> "We hold . . . that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the *fair value* of the property being used by it for the convenience of the public." [6]

Smyth v. Ames marks the beginning of modern public utility rate regulation. Although its original purpose was merely the declaration of general principles of judicial review on the question of due process,[7] the decision has been adopted by the courts as the formula that commissions must use in establishing rates. Thus rates are computed to yield an allowed return, which is itself the sum of the allowable operating expenses, taxes

1. See TROXELL, ECONOMICS OF PUBLIC UTILITIES 8-11, 25-44 (1947); BAUER AND GOLD, PUBLIC UTILITY VALUATION FOR PURPOSES OF RATE CONTROL 3-8 (1934).
2. See, for example, the various Granger laws.
3. *E. g.*, Munn v. Illinois, 94 U. S. 113 (1876); Chicago, B. & Q. R. R. v. Iowa, 94 U.S. 155 (1876); Peik v. Chicago & N.W. Ry., 94 U.S. 164 (1876).
4. *E.g.*, The Interstate Commerce Act, 24 STAT. 379 (1887), as amended 49 U.S.C. § 1 (1946).
5. 169 U.S. 466 (1898); *cf.* Chicago, M. & S.P. Ry. v. Minnesota, 134 U.S. 418 (1890).
6. Smyth v. Ames, *supra* note 5 at 546. (Emphasis added).
7. TROXELL, *op. cit. supra* note 1, at 264-265.

and annual depreciation, plus an adequate return for the investor. This last is a percentage (generally from five to eight per cent, depending on the risk involved and the prevailing rate of return in other enterprises) of the "fair value" of the property or "rate base." Although there has been a tendency in recent years for courts to look at the reasonableness of the total effect of the process,[8] a commission, in order to carry out its part of the job, must determine each separate element properly. By far the most difficult part of the task is the ascertainment of the rate base. It is the purpose of this Note to trace the methods used by the Pennsylvania Public Utility Commission in determining the proper rate base and analyze the reaction of the courts to these methods.

THE FEDERAL BACKGROUND

Any discussion of the nature of fair value must start with an analysis of the pronouncements of the Supreme Court of the United States, since the concept originated there and since it is, on the issue of confiscation, the court of last resort. The essence of the problem stems from the application of dictum in *Smyth v. Ames* that, to ascertain the fair value of a utility,

> "the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration and are to be given such weight as may be just and right in each case." [9]

This statement formed the basis of all judicial review of rate-making for the next thirty years and was enacted into law as part of the Pennsylvania Public Service Company Law of 1913.[10]

The Trend Toward Reproduction Cost.—Justice Harlan's reasoning in *Smyth v. Ames* appears to have been based partly on earlier eminent domain cases interpreting the requirement of "just compensation" for the taking of property.[11] The normal test of just compensation in eminent domain cases is the market value of the property [12] and, where the property taken is a business, evidence of earnings is relevant in determining

8. *E.g.*, FPC v. Hope Natural Gas Co., 320 U.S. 591, 602 (1944); Colorado Interstate Gas Co. v. FPC, 324 U.S. 581, 589 (1945).

9. 169 U.S., at 546, 547.

10. Act of July 26, 1913, P.L. 1374, Art. V, § 20, *repealed*, PA. STAT. ANN., tit. 66, § 1562 (Purdon, 1941).

11. See Hale, *Does the Ghost of Smyth v. Ames Still Walk?*, 55 HARV. L. REV. 1116-1123 (1942); BAUER AND GOLD, *op. cit. supra* note 1, at 56-60; 2 BONBRIGHT, THE VALUATION OF PROPERTY, 1094-1097 (1937). The confusion is perhaps more apparent in the lower court opinion. See Ames v. Union Pac. Ry., 64 Fed. 165, 177 (C.C.D. NEB. 1894).

12. ORGEL, VALUATION UNDER THE LAW OF EMINENT DOMAIN 55 (1936); 1 BONBRIGHT, *op. cit. supra* note 11, at 411 *et seq.*

that value.[13] In rate-making, however, the earnings themselves are under scrutiny, and any rate base which capitalizes earnings under existing rates is totally useless; the present rates, no matter how excessive, can never be reduced.[14] Courts and commissions have, therefore, almost universally excluded probable earning power and market value of securities from consideration in determining fair value.[15] To ascertain present value, they have turned to something less obviously dependent on earnings. This substitute value is cost, particularly reproduction cost, *i.e.*, the cost of reproducing the present plant at the present time.[16]

When *Smyth v. Ames* was decided, and for about fifteen years thereafter, prices were at a low ebb.[17] Consequently utilities whose property was constructed before the decline argued eloquently in favor of original cost as the measure of fair value. The consumers, on the other hand, pressed for the lower reproduction cost. Although the court was inclined to follow those commissions which tended to fix fair value on the basis of reproduction cost,[18] it did not commit itself to any definite formula.[19] No case rejected original cost because of the drop in prices; the chief obstacles were apparently the extravagance of early investments and the lack of accounting records.[20] The lack of such records led to an appraisal of the utility's property under present prices and, as a rule, this present value and original cost were not too far apart.[21] There is some indication that the commissions thought of fair value as found as the amount prudently invested in utility property and intended to use it, with later additions at actual cost, as the rate base for future proceedings.[22] Despite this indication, the Supreme Court made only two modifications of the rule of *Smyth*

13. See ORGEL, *op. cit. supra* note 12 at 708-717, which points out that, even in eminent domain cases, earnings are not regarded as the primary factor.

14. To take a simple case, assume that Utility X is organized in 1949 with assets which cost $100,000. A year later its rates come under scrutiny and the Commission determines that it should earn 6% on the fair value of the property. For the year past its earnings have been sufficient to give a $12,000 return. If fair value is obtained by capitalizing earnings under the formula

$$\frac{\text{cost}}{\text{fair value}} = \frac{\text{6\% return on cost}}{\text{actual return}}$$

the rate base will be $200,000, and the utility must continue to receive $12,000 a year to earn a 6% return. If, however, cost is used as the rate base, it may readily be seen that the utility is earning $6,000 more than is necessary.

15. See TROXEL, *op. cit. supra* note 1, at 265. *But cf.* Denver Union Stock Yard v. United States, 304 U.S. 470, 479 (1938).

16. See Hale, *op cit. supra* note 11, at 1122-1123.

17. BAUER AND GOLD, *op. cit. supra* note 1, at 63.

18. San Diego Land & Town Co. v. Jasper, 189 U.S. 439 (1903); Knoxville v. Knoxville Water Co., 212 U.S. 1 (1909); Willcox v. Consolidated Gas Co., 212 U.S. 19 (1909); Cedar Rapids Gas Light Co. v. Cedar Rapids, 223 U.S. 655 (1912).

19. Minnesota Rate Cases, 230 U.S. 352, 434 (1913).

20. *See Id.* at 454; San Diego Land & Town Co. v, Jasper, 189 U.S. 439, 442-443 (1903). See BAUER AND GOLD, *op. cit. supra* note 1, at 63-66.

21. BAUER AND GOLD, *op. cit. supra* note 1, at 63.

22. *Id.* at 74-76.

v. Ames during this period. It rejected figures derived from earnings as measures of fair value,[23] and in the *Knoxville* case it declared that in determining fair value there must be a deduction for the depreciation from age and use.[24]

With the advent of World War I, the gradually developing valuation policy of the commissions was interrupted. Beginning in 1915, price levels rose rapidly. In 1920 the average price level was 150% above that of 1913. This was followed by a sharp downward trend with prices eventually settling about 75% above the pre-war level.[25] Commissions turned from rate reduction to consideration of rate increases. In passing on the increases, courts were inclined to favor reproduction cost as a basis, but they at first adopted the average of prices over a period rather than the supposedly abnormal prices prevailing at the time of the valuation.[26] In the *Southwestern Bell* case, however, the Supreme Court took judicial notice of the continuing high prices and declared that in order to make a forecast of values for the future, consideration of present reproduction costs was necessary.[27] Although the decision is perhaps most noteworthy for the vigorous and realistic dissent by Justice Brandeis, it is significant as a definite adoption of reproduction cost as a dominant factor in determining fair value. Subsequent decisions followed the same pattern,[28] and the climax was reached in the *McCardle* case[29] where the court, although paying lip service to *Smyth v. Ames,* based the decision almost exclusively on reproduction cost new less observed depreciation. Furthermore, the court abandoned the notion that prices would return to "normal" and stated that reproduction cost should be calculated from present rather than average prices.[30]

Modern Rate-Making Theories.—Justice Brandeis' dissent in the *Southwestern Bell* case attacked the rule of *Smyth v. Ames* and the emphasis on reproduction cost as economically unsound.[31] What the investor devotes to the public use is not, according to him, the specific property, whose value fluctuates with the change of prices and diminishes as depreciation takes effect, but an ascertainable amount of capital. He is entitled to receive a return on the amount of capital *prudently invested* in the enterprise, and no more. Such a rate base would be definite, permanent, and

23. Willcox v. Consolidated Gas Co., 212 U.S. 19, 47 (1909).

24. Knoxville v. Knoxville Water Co., 212 U.S. 1, 9 (1909).

25. BAUER AND GOLD, *op. cit. supra* note 1, at 77.

26. Galveston Elec. Co. v. Galveston, 258 U.S. 388 (1922). The theory was that prices would eventually settle at a figure somewhere between the present and past prices.

27. Southwestern Bell Telephone Co. v. Public Service Commission, 262 U.S. 276, 287, 288 (1923).

28. *See* Bluefield Waterworks v. Public Service Commission, 262 U.S. 679, 692 (1923); St. Louis & O'Fallon R.R. v. United States, 279 U.S. 461, 487 (1929).

29. McCardle v. Indianapolis Water Co., 272 U.S. 400 (1926).

30. *Id.* at 408-412.

31. Southwestern Bell Telephone Co. v. Public Service Commission, *supra* note 27, at 290.

high enough to yield the investor an adequate return,[32] without allowing him to reap profits on money he never invested.

In spite of the cogency of Justice Brandeis arguments, the Supreme Court by 1930 seemed definitely committed to a reproduction cost rate base. However, the financial collapse in 1929 brought about a re-examination of and ultimately a change in the court's position. The first break in the *McCardle* rule was the *Los Angeles Gas* case in 1933.[33] The California Commission had considered two valuations, one based on historical cost undepreciated,[34] and the other based on reproduction cost less accrued depreciation. Under the proposed rates, the return would have been 7.7 per cent on the former and 7 per cent on the latter figure. Even though the commission's order was based on historical cost, the Supreme Court sustained the rates as set. Chief Justice Hughes stated that the Court would not interfere unless confiscation of the utility's property were clearly established.[35] The following year, the court sustained an original cost valuation of a bridge by the Pennsylvania Public Service Commission,[36] and, in the *Lindheimer*[37] and *Dayton*[38] cases pointed out the absurdities reached by reproduction cost valuations.

In recent years, in cases decided under the Natural Gas Act of 1938,[39] the Supreme Court has declared that the Federal Power Commission need not consider reproduction cost.[40] However, it is not exactly clear just what standards the Court will apply.[41] The concurring justices in the *Pipeline* case felt that the time had come to adopt prudent investment as a rate base. In the *Hope* case, a rate base of actual legitimate cost less accrued depreciation was sustained. The court, speaking through Justice Douglas, declared that "it is not theory but the impact of the rate order which counts."[42] Justice Jackson, sensing the lack of any rational rela-

32. Sufficient fluidity to attract risk capital would be obtained by varying the rate of return, a much easier matter.

33. Los Angeles Gas & Elec. Corp. v. Railroad Commission, 289 U.S. 287 (1933).

34. Historical cost means cost when first acquired by the utility in question.

35. Los Angeles Gas & Elec. Corp. v. Railroad Commission, *supra* note 33, at 304-305.

36. Clark's Ferry Bridge Co. v. PSC, 291 U.S. 227 (1934). The effect of the decision is somewhat lessened by the fact that the bridge was comparatively new.

37. Lindheimer v. Illinois Bell Tel. Co., 292 U.S. 151, 161-164 (1934). Although the company had always paid substantial dividends, the lower court found that the *old* rates were grossly confiscatory under the fair value rule.

38. Dayton Power & Light Co. v. Public Utilities Commission, 292 U.S. 290, 311-312 (1934). The company sought an increase that would have given approximately a one per cent return on the fair value of the property.

39. 52 STAT. 821 (1938), 15 U.S.C. § 717 (1946). Section 6 provides: "(a) The Commission may investigate and ascertain the *actual legitimate cost* of the property of every natural-gas company, the depreciation therein, *and, when found necessary* for rate-making purposes, other facts which bear on the determination of such cost or depreciation and *the fair value* of such property." (Emphasis added.) The statutory language indicates that Congress felt that consideration of reproduction cost might no longer be required by due process.

40. *E.g.*, FPC v. Hope Natural Gas Co., 320 U.S. 591, 605 (1944); FPC v. Natural Gas Pipeline Co., 315 U.S. 575, 606 (1942) (concurring opinion).

41. See *Id.* at 386. See Fisher, *What Says the Court? Criteria for Utility Regulation*, 44 P.U. FORT. 856 (1949). And see Hale, *op. cit. supra* note 11, at 1129-1140.

42. FPC v. Hope Natural Gas Co., *supra* note 40, at 602.

tion between the original cost of gas lease-holds and their present value, would go even further and exclude consideration of rate base in any way in cases such as this.[43] And, to complicate the problem still further, at least three members of the court have indicated a willingness to leave the question of adequacy of rates to the commissions and review only the propriety of the procedure.[44] It appears that the majority is not yet willing to go so far. A utility is still protected if the total effect of the rate order is confiscatory.[45]

The above survey indicates that the decisions of the United States Supreme Court on the question of rate base fall into two groups. The earlier, from *Smyth v. Ames* down to the *McCardle* case, shows the focus on fair value and reproduction cost; the later group, from the *Los Angeles Gas* case to the present, reflects the shift toward original cost and prudent investment. The decisions by the Pennsylvania courts on the question do not, however, reveal a similar division. Both courts and commission, in working with the Public Service Company Law, followed the United States Supreme Court. Yet when the Pennsylvania legislature, spurred on by the trend of federal decisions, enacted a new law designed to establish prudent investment in Pennsylvania, the Superior Court overturned all attempts by the Commission to follow the legislative lead and adhered closely to the pattern of decisions under *Smyth v. Ames.*

THE FIRST EFFECTIVE ATTEMPT AT REGULATION IN PENNSYLVANIA—1913-1937

Regulation of public utilities prior to the passage of the Public Service Company Act of 1913 was haphazard and often ineffective.[46] To combat this situation, the 1913 Act provided for the general regulation of all phases of public utility activity by the Public Service Commission.[47] The Commission was authorized to determine "just, due, equal, and reasonable rates," [48] and to ascertain for this purpose the fair value of the utility's property.[49] The act carefully spelled out the criteria the Commission was

43. *Id.* at 645-660 (dissenting opinion); *see* Colorado Interstate Gas Co., 324 U.S. 581, 612-615 (1945) (concurring opinion).

44. Justices Frankfurter, Black, Douglas, and Murphy. *See* Driscoll v. Edison Light & Power Co., 309 U.S. 104, 122 (1939) (concurring opinion); FPC v. Natural Gas Pipeline Co., *supra* note 40, at 606-607 (dissenting opinion). See also Hale, *op. cit. supra* note 11, at 1130-1140.

45. Colorado Interstate Gas Co. v. FPC, 324 U.S. 581, 605 (1945).

46. See BUCKWALTER, THE VALUATION PROCEDURE FOR RATE MAKING OF THE PUBLIC SERVICE COMMISSION OF PENNSYLVANIA, 11-55, 309 (1942).

47. Act of July 26, 1913, P.L. 1374.

48. Act of July 26, 1913, P.L. 1374, Art. V, § 3, superseded by PA. STAT. ANN. tit. 66, § 1141 (Purdon, 1941).

49. Neither the Act of 1913 nor the present Public Utility Law specifically require a finding of fair value, but it is virtually impossible for the Commission to fix dates without making a valuation because of the fair value rule of *Smyth v. Ames.* The practice of the commissions has been to make a definite finding of fair value when it is imposing rates on the utility which the utility claims are confiscatory and to refrain from making a finding when the rates sought by the utility are upheld. See New Street Bridge Co. v. PSC, 271 Pa. 19, 38, 114 Atl. 378, 384 (1921); Philadelphia v. PSC, 84 Pa. Super. 135, 144 (1924); Perkasie Sewer Co. v. PUC, 142 Pa. Super. 262, 265, 16 A.2d 158, 160 (1940).

to use in ascertaining fair value, following almost word for word the language of *Smyth v. Ames*.[50] As a result, the history of decisions interpreting the Public Service Company Act closely parallels the history of decisions by the United States Supreme Court on the question of confiscation. As the climate of opinion on the Supreme Court shifted more and more towards the requirements of a reproduction cost rate base, reproduction cost played an ever increasing part in the valuations by the Public Service Commission. Thus the Superior Court was able to say in the *Solar* case:

> "From *Smyth v. Ames* . . ., down to and including *R. R. Commission of California v. Pacific Gas and Electric Co.* . . ., and throughout the decisions of our Supreme Court and of this court, the cost of reproducing the property has consistently been held to be not only a relevant but also an essential element in the ascertainment of its 'fair value' for rate-making purposes." [51]

Despite its dependency upon reproduction cost as a primary test of fair value, the Public Service Commission did not commit itself to any single formula.[52] Occasionally, it made use of its authority to consider other elements of value, though the role that these elements played is somewhat confusing and open to question. For example, the Commission referred to the size of the plant, the extent of the distribution system, and the number of consumers in arriving at a rate base for a water company.[53]

50. Act of July 26, 1913, P.L. 1374, Art. V, § 20(a): "The commission shall have power upon application or upon its own motion, to ascertain and determine the fair value of the property of every public service company in this Commonwealth, and to determine any matter in connection therewith; and shall exercise the said power whenever the same is required, or whenever it shall deem such valuation or determination necessary or proper under any of the provisions of this act.

"In ascertaining and determining such fair value the commission may determine every fact, matter, or thing which, in its judgment, does or may have any bearing on such value; and may take into consideration, among other things, the original cost of construction, particularly with reference to the amount expended in the existing and useful permanent improvements; with such consideration for the amount in market value of its bonds and stocks, the probable earning capacity of the company under the particular rates prescribed by statute or ordinance, or other municipal contract, or fixed or proposed by the commission, and for the items of expenditures for obsolete equipment and construction, as the circumstances and the historical development of the enterprise may warrant; the reproduction costs of the property, based upon the fair average prices of materials, property, and labor, and the developmental and going concern value of such public service company; and these, and any other elements of value, shall be given such weight by the commission as may be just and right in each case." See Beaver Valley Water Co. v. PSC, 76 Pa. Super. 255, 258-260 (1921).

51. Solar Electric Co. v. PUC, 137 Pa. Super. 325, 344, 9 A.2d 447, 456 (1939).

52. See BUCKWALTER, *op. cit. supra* note 46, at 76-78. Frequently the Commission made "allowances" for various items without indicating what the particular amount allowed was. See *e.g.*, Elwood v. Elwood Water Co., 5 Pa. P.S.C. 214, 217 (1921); Meyersdale v. Meyersdale Light, Heat & Power Co., 5 Pa. P.S.C. 545, 547 (1921). This practice was condemned by the Superior Court in Scranton-Spring Brook Water Co. v. PSC, 105 Pa. Super. 203, 209, 211, 160 Atl. 230, 233, 234 (1932). However, since in many cases the Commission was dealing with going value, failure to set a specific figure was perhaps justifiable. See TROXEL, *op. cit. supra* note 1, at 320.

53. Harbster v. Angelica Water & Ice Co., 3 Pa. P.S.C. 469 (1918).

A year later, in fixing the fair value of an electric company, it emphasized the character of the community, the utility's prospects for the future, and the "judicious investment" of the original owners.[54] In neither of these cases was a specific value assigned to any of these elements.[55] It would appear that none could be found, for these items properly speaking have no place in fair value beyond the extent to which they are already included in the original cost or reproduction cost figures for the physical plant. If they are to be given any additional weight in the rate-making process, they should be used only in determining the rate of return, one factor in which is the utility's efficiency in serving the public. The Commission's use of these items, however, closely resembles capitalizing the utility's present earning power.[56]

The Role of Reproduction Cost.—On the whole, extraneous elements such as those referred to above played a very small part in the Commission's valuation standards;[57] reproduction cost was almost always the major factor. In the earlier cases, the Commission seemed to favor a composite rate base, giving consideration to both original and reproduction cost.[58] Five-year average prices were adopted in determining reproduction cost;[59] the Commission considered spot prices dangerous in a period of rising prices, but felt that ten-year average prices would unduly favor the consumer.[60] In one case it indicated an inclination towards the split-inventory method.[61] In 1923, the Commission, following the Supreme Court of the United States, moved towards a reproduction cost base.[62] After 1926 spot prices were used, not because of a feeling that the average price system was defective, but rather because the Commission felt that

54. Rose v. Mercersburg, Lehmaster & Markes Elec. Co., 4 Pa. P.S.C. 131 (1919).

55. See BUCKWALTER, *op. cit. supra* note 46, at 82-84.

56. See TROXELL, *op. cit. supra* note 1, at 379, with regard to the role of these items in the rate of return. The intangible element of value in these items is akin to good-will, which was rejected as an element of fair value in Ben Avon Borough v. Ohio Valley Water Co., 68 Pa. Super. 561, 588 (1917).

57. They are significant chiefly as an indication of an inclination towards a value rather than an investment basis of rate regulation.

58. *E.g.*, Ben Avon Borough v. Ohio Valley Water Co., 2 Pa. P.S.C. 733, 766 (1917); Apollo v. Apollo Water Works, 4 Pa. P.S.C. 360, 365 (1919); Allied Printing Trades Council v. Scranton Ry., 5 Pa. P.S.C. 180, 192 (1921).

59. Harbster v. Angelica Water and Ice Co., 3 Pa. P.S.C. 469 (1918); Brownsville v. Brownsville Water Co., 4 Pa. P.S.C. 239 (1919); Verona v. Suburban Water Co., 4 Pa. P.S.C. 748, 753 (1920); Meyersdale v. Meyersdale Elec. Light, Heat & Power Co., 5 Pa. P.S.C. 545 (921).

60. Hanover v. Conewago Gas Co., 5 Pa. P.S.C. 634 (1922); Cauffiel v. Johnstown Water Co., 5 Pa. P.S.C. 718 (1922). When five-year estimates were unavailable, ten-year averages were used rather than spot prices. Doud v. Mansfield Water Co., 5 Pa. P.S.C. 668 (1922).

61. Erie v. Buffalo & Lake Erie Traction Co., 4 Pa. P.S.C. 782, 789 (1920). Fair value was fixed on a compromise basis. See BUCKWALTER, *op. cit. supra* note 46, at 129. The split-inventory method involves valuation of the older part of the property at reproduction cost and recent additions at original cost.

62. Philadelphia v. Phila. Rapid Transit Co., 6 Pa. P.S.C. 431, 438, 441 (1923); Hall v. Leighton Water Co., 6 Pa. P.S.C. 768 (1924). The shift was in part caused by the decision in Mercersburg, Lehmasters & Markes Elec. Co. v. PSC, 76 Pa. Super. 58 (1921) which reversed a Commission decision that gave too much weight to original cost. See also Lewistown v. PSC, 80 Pa. Super. 528, 532 (1923).

prices had become stabilized.[63] For several years after the price drop in 1929 reproduction cost at spot prices continued to be the basis of valuations, although the Commission turned to a split-inventory method to avoid depressed rate bases. In the *Chambersburg* case,[64] the Commission used 1929 spot prices on property owned at that time with additions since then at actual cost. However, in 1939, in the *Scranton-Spring* case,[65] the Commission applied index figures to a 1928 reproduction cost estimate to get a trended reproduction cost. Net additions since 1928 were added at actual cost. As a rule, the Public Service Commission and the Pennsylvania courts agreed on the weight given to reproduction costs and on the methods used to determine them.[66] For the most part they both adhered to the decisions of the United States Supreme Court,[67] following that body in its inclination to the adoption of reproduction cost as the absolute test under the *McCardle* rule.

Original Cost.—In early decisions the Public Service Commission gave considerable weight to original cost, which it defined as "the cost of the properties where first dedicated to public use." [68] There are indications that reproduction cost was adopted chiefly because of deficiencies in accounting records.[69] In 1919 there was a definite tendency to adopt original cost.[70] The Commission, however, would not accept book cost or estimates of original cost based on reproduction costs at the time of construction, since these were likely not to reflect the actual investment in property.[71] In cases where the property had been constructed recently, the Commission favored original cost as better evidence of value than speculative reproduction cost estimates.[72] However, the Superior Court, already indicating what its attitude toward the Public Utility Commission's attempt to establish prudent investment would be, was consistently op-

63. Columbia v. Columbia Water Co., 9 Pa. P.S.C. 595 (1929); Grove City v. Union Heat & Light Co., 11 Pa. P.S.C. 792 (1933); Susquehanna Depot v. Canawacta Water Supply Co., 12 Pa. P.S.C. 105 (1933). See BUCKWALTER, *op. cit. supra* note 46, at 142, 143.

64. Chambersburg v. Chambersburg Gas Co., 11 Pa. P.S.C. 583 (1932).

65. Scranton v. Scranton-Spring Brook Water Service Co., 13 Pa. P.S.C. 1, 235 (1934).

66. Chambersburg Gas Co. v. PSC, 116 Pa. Super. 196, 176 Atl. 794 (1935); Scranton-Spring Brook Water Service Co. v. PSC, 119 Pa. Super. 117, 181 Atl. 77 (1935).

67. See, *e.g.*, Ben Avon Borough v. Ohio Valley Water Co., *supra* note 56, at 577.

68. Thayer v. Beaver Valley Water Co., 2 Pa. P.S.C. 430, 433 (1916). See also Ben Avon Borough v. Ohio Valley Water Co., 2 Pa. P.S.C. 969 (1917).

69. Plymouth v. Wikes-Barre Ry., 4 Pa. P.S.C. 722, 724 (1920); Parker v. Sinking Spring Water Co., 4 Pa. P.S.C. 609, 611 (1920). See BUCKWALTER, *op. cit. supra* note 46, at 152.

70. Renfrew v. Fayetteville Water Co., 4 Pa. P.S.C. 232, 236 (1919); Fox v. Pine Grove Elec. Light Co., 4 Pa. P.S.C. 292, 297 (1919); Heckert and Header v. Hegins Water Co., 4 Pa. P.S.C. 283 (1919).

71. Verona v. Suburban Water Co., 4 Pa. P.S.C. 748, 750 (1920). However, when original cost was not ascertainable, estimates of historical cost were considered. Waynesburg v. Waynesburg Water Co., 5 Pa. P.S.C. 745, 748 (1922).

72. Philadelphia v. Phila. Rapid Transit Co., 6 Pa. P.S.C. 431, 438 (1923); Herring v. Clark's Ferry Bridge Co., 8 Pa. P.S.C. 61, 65 (1926).

posed to emphasis on original cost on the ground that it was a poor measure of the present value.[73]

Par Value of Outstanding Securities.—The Supreme Court of Pennsylvania, in two cases decided before the Act of 1913 took effect, declared that rates would be reasonable if the utility earned a fair return upon the investment in it.[74] However, the Commission seldom used the amount of the outstanding securities in fixing fair value.[75] The principal reason for considering data on the costs of plant construction more satisfactory was the fact that many utilities had securities of an amount far in excess of any figure which could be assigned to the tangible property. For example, in the *Beaver Valley* case the Commission found original cost to be $1,159,000, depreciated reproduction cost $983,161, and outstanding securities $2,247,000; fair value was set at $985,000.[76] In the *Pittsburgh Railways* case the original and reproduction cost estimates were identical—$49,324,000—but the figure found for outstanding securities was $156,000,000.[77] However, where overcapitalization or undercapitalization was not evident, the Commission gave some weight to the amount of securities. In the *Perkasie* case, fair value was fixed at $50,000. The amount found for outstanding securities was $46,606, and reproduction cost was estimated at $81,197.[78] In one case market value of securities appears to have been a factor.[79]

Accrued Depreciation.—Following decisions by the United States Supreme Court stemming from the *Knoxville* case,[80] the Public Service Commission consistently held that accrued depreciation must be deducted from reproduction cost in ascertaining fair value.[81] In its treatment of original cost, however, the Commission was not so certain that depreciation should be deducted; certainly depreciated original cost was never a significant factor in fair value as finally found.[82] Furthermore, in a few cases undepreciated original cost was accorded considerable weight.[83] The

73. Ben Avon Borough v. Ohio Valley Water Co., *supra* note 56, at 578; Mercersburg Elec. Co. v. PSC, 76 Pa. Super. 58, 65 (1921); Erie v. PSC, 278 Pa. 512, 123 Atl. 471 (1924). See BUCKWALTER, *op. cit. supra* note 46 at 161.

74. Brymer v. Butler Water Co., 179 Pa. 231, 251, 36 Atl. 249, 251 (1897); Turtle Creek Borough v. Penna. Water Co., 243 Pa. 401, 414, 90 Atl. 194, 198 (1914).

75. BUCKWALTER, *op. cit. supra* note 46, at 170.

76. Thayer v. Beaver Valley Water Co., 2 Pa. P.S.C. 430, 435, 439, 459 (1917).

77. Pittsburgh v. Pittsburgh Rys., 4 Pa. P.S.C. 479, 492, 494 (1920).

78. Perkasie v. Perkasie Sewer Co., 5 Pa. P.S.C. 243 (1921). See also Brownsville v. Brownsville Water Co., 4 Pa. P.S.C. 239 (1919); Mount Holly Springs v. Mount Holly Water Co., 4 Pa. P.S.C. 325 (1920); Verona v. Suburban Water Co., 4 Pa. P.S.C. 748 (1920).

79. Bloomsburg v. Bloomsburg Water Co., 4 Pa. P.S.C. 580, 586 (1920).

80. Knoxville v. Knoxville Water Co., *supra* note 24.

81. *E.g.*, PSC v. Cheltenham and Abington Sewerage Co., 14 Pa. P.S.C. 76, 86 (1935); Plymouth v. Wilkes-Barre Ry. 4 Pa. P.S.C. 722, 724 (1920).

82. Hall v. Lehighton Water Supply Co., 6 Pa. P.S.C. 768 (1924); Casanave v. Overbrook Steam Heat Co., 7 Pa. P.S.C. 397 (1925).

83. *E.g.*, Lehighton v. New Parryville Consolidated Gas Co., 5 Pa. P.S.C. 809, 811 (1922); Brubaker v. Millersburg Home Water Co., 8 Pa. P.S.C. 193, 195 (1926).

failure to deduct accrued depreciation in these cases was apparently the result of a slight inclination toward an invested capital rate base,[84] and not an adoption of the retirement theory, which assumes that property, if maintained, does not depreciate until it is retired.[85] The retirement theory never received direct sanction, though it furnishes the only possible justification for the most singular 1923 *PRT* case where the Commission discovered "a minimum of depreciation" *offset by* "a maximum of going value." [86]

After 1926 the focus of disputes over accrued depreciation shifted from the problem of whether there should be a deduction to the question of what was the proper method to determine the amount to be deducted. Federal decisions, especially *McCardle v. Indianapolis Water Co.*,[87] had expressed approval of the observation method, by which depreciation is determined by examination of the physical condition of the property. The Public Service Commission, however, in line with the utility commissions of other states,[88] preferred to use the age-life method, by which accrued depreciation is calculated on the basis of the age and estimated life of the property, or a judgment figure based on consideration of the results produced by the two methods.[89] The Superior Court also tended to favor estimates based on consideration of both the age-life and observation methods.[90]

Despite occasional inconsistencies, the Public Service Commission performed its job quite well. It benefited from the experience of earlier commissions in other states in many cases, and it balanced the interests of the investor and the consumer fairly equally. It did not, however, succeed in establishing a completely satisfactory rate base, and it did not adopt an aggressive policy of investigating utilities whose earnings were patently excessive, but it was hampered by the incorporation of the fair value rule of *Smyth v. Ames* into the Act of 1913, and by the pro-utility attitude of the courts of that time.[91] A desire to remedy the existing evils and to protect the consumers from excessive rates masked behind reproduction cost estimates led the Democratic legislature of 1937 to enact the present Public Utility Law.

84. It is interesting to note that the Public Utility Commissioner used the same method in its first attempt to establish prudent investment. PUC v. Solar Electric Co., 18 Pa. P.U.C. 359, 390 (1938).

85. 2 WHITTEN AND WILCOX, VALUATION OF PUBLIC SERVICE CORPORATIONS 1729 (1928).

86. Philadelphia v. Phila. Rapid Transit Co., 6 Pa. P.S.C. 431, 447 (1923).

87. McCardle v. Indianapolis Water Co., *supra* note 29, at 416.

88. *E.g., Re* Stockton Terminal, 2 Cal. R.C.R. 770, 790 (1913); Moritz v. Edison Electric Illuminating Co., P.U.R. 1917A 364 (N.Y.); *Re* United Rys. & Electric Co., P.U.R. 1926C 441 (Md.).

89. *Compare* Taxpayers of Easton v. Lehigh Water Co., 14 Pa. P.S.C. 1, 13 (1935) *with* Chambersburg v. Chambersburg Gas Co., 11 Pa. P.S.C. 583, 595 (1932).

90. Cheltenham & Abington Sewerage Co. v. PSC, 122 Pa. Super. 252, 269-271, 186 Atl. 149, 157-159 (1936).

91. BUCKWALTER, *op. cit. supra* note 46, at 316.

FAIR VALUE UNDER THE PUBLIC UTILITY LAW

In 1937 the Public Service Commission was abolished and a new Public Utility Commission was set up [92] to administer the Public Utility Law.[93] The new law was passed during the Earle Administration during a period which many of the stimuli which produced the federal Natural Gas Act were at work in Harrisburg.[94] Examination of the legislative history of the act indicates that it was designed to remedy the effect of judicial legislation in favor of reproduction cost; the Chairman of the House Committee on Public Utilities declared at the time of final passage:

> ". . . but I say to you that our interest is larger and broader than the interest he has demonstrated here this evening in that we desire to see that the people of Pennsylvania receive a fair rate from their public service utilities, and that rate as provided by the bill will be fair to the investors, will of necessity be fair to the employees of the utilities, and above all will be fair to the users of the respective public utilities. The bill provides for a return on the *capital invested* in the assets of the corporation, not a fanciful one, not a conjured one, but a real and actual value. It is on that basis that we are expecting the Public Utilities Commission to fix the rates of the various utilities in this State." [95]

To this end, some significant changes were made in the new law. Rates were to be "just and reasonable," [96] and the Public Utility Commission was authorized to fix the fair value of the utility's property, but criteria for determining fair value set forth in the earlier act were specifically excluded.[97] The Commission was authorized to fix temporary rates, and to use as a rate base for this purpose original cost less accrued depreciation.[98] Furthermore, this scope of judicial review, extended in 1931 to

92. PA. STAT. ANN., tit. 66, § 464 (Purdon, 1941). The Public Utility Commission was established by the Act of March 31, 1937, whereas the Public Utility Law was embodied in a companion act, the Act of May 28, 1937. Subsections 464 (c) and (d) preserved for the new commission all business of the Public Service Commission.

93. PA. STAT. ANN., tit. 66, § 1101 *et seq.* (Purdon, 1941).

94. See dissenting opinions of Commissioner Buchanan in PUC v. Peoples Natural Gas Co., 24 Pa. P.U.C. 669, 678-682 (1944) and 24 Pa. P.U.C. 559, 569-570 (1944). He stated that the FPC approved the act in draft form.

95. 21 PA. LEGISLATIVE JOURNAL 4522 (1937).

96. PA. STAT. ANN., tit. 66, § 1141 (Purdon, 1941).

97. PA. STAT. ANN., tit. 66, § 1151 (Purdon, 1941): "The commission may after reasonable notice and hearing, ascertain and fix the fair value of the whole or any part of the property of any public utility, in so far as the same is material to the exercise of the jurisdiction of the commission, and may make revaluations from time to time and ascertain the fair volue of all new construction, extensions, and additions to the property of any public utility. When any public utility furnishes more than one of the different types of utility service enumerated in . . . this act, the commission shall segregate the property used and useful in furnishing each type of service, and shall not consider the property of such public utility as a unit in determining the value of the property of such public utility for the purpose of fixing rates."

98. PA. STAT. ANN., tit. 66, § 1150 (Purdon, 1941).

include independent judgment of the reasonableness of the findings [99] as a result of *Ohio Valley Water Co. v. Ben Avon Borough,*[100] was cut down to consideration of errors of law and sufficiency of the evidence.[101]

With the advent of the new act, coupled with the United States Supreme Court's recession from the *McCardle* doctrine, the future of reproduction cost as a factor in rate-making seemed short. The Commission began a series of vigorous investigations and ordered temporary rates in many cases.[102] The champions of prudent investment had, however, reckoned without the Superior Court, which seized upon the words *fair value* as a means of thwarting the legislative purpose. The subsequent history of the act has been a series of clashes over the meaning of these ineptly drafted words. The end result has been to preserve almost intact the valuation standards of the old Public Service Company Law, in which reproduction cost played a very large part.

Reproduction Cost Procedure.—The theory upon which reproduction cost valuation is predicated is that the plant as it exists has vanished overnight and is to be rebuilt identically under present prices. The simplicity with which the concept may be expressed makes the process appear clear and definite, but in practice it proves cumbersome and highly uncertain. Months and even years are spent in arriving at a figure which, for all the pages of computations behind it is no more than a semi-expert guess.

The procedure involved in preparing a reproduction cost estimate is as follows: First, engineers make an inventory of all real estate, buildings, equipment, distribultion systems, and miscellaneous property, complete to the last detail. The number of bricks required for each building must be estimated. Excavations must be made to determine the size, type, and condition of water and gas mains. If the utility meters its sales, each meter must be classified according to age, design, condition, and type of connection. After an inventory of each item has been made and divided into classes, the engineers compute unit prices—the cost of materials and labor to put the unit in place ready for service—for each class of item. Multiplying this by the number of items in the class, they then calculate the reproduction cost of that part of the utility property. Reproduction costs for land, buildings, and furniture are ascertained by consultation with real

99. Act of June 12, 1931, P.L. 530.

100. 253 U.S. 287 (1920). The rule laid down in that case is not completely dead. See Staten Island Edison Corp. v. Maltbie, 296 N.Y. 374, 73 N.E.2d 705 (1947); Atlantic Coast Line R.R. v. Pub. Utilities Commission, 77 F. Supp. 675 (E.D.S.C. 1948). It is, however, doubtful that the United States Supreme Court would adhere to the rule today.

101. PA. STAT. ANN., tit. 66, § 1437 (Purdon, 1941). Despite the express restriction in the statute, the Superior Court was not deterred from exercising its independent judgment in Solar Electric Company v. PUC, *supra* note 51, at 350, 351, 9 A.2d at 464, 465, and in PTC v. PUC, 155 Pa. Super. 9, 18, 37 A.2d 138, 143 (1944). As a rule, however, the Court prefers to reverse for error of law. See Pittsburgh v. PUC, 158 Pa. Super. 229, 235, 44 A.2d 614, 616 (1945).

102. *E.g.*, PUC v. Edison Light & Power Co., 17 Pa. P.U.C. 380 (1937); Philadelphia Electric Co., 17 Pa. P.U.C. 303 (1937).

estate dealers, building contractors, and furniture dealers.[103] The final figure is the product of the judgment of many different experts, but not even the expertness of the appraisers will produce a figure that can safely be called accurate; it is by no means uncommon for reproduction cost estimates to differ from each other by over 50 per cent.[104]

Two of the most perplexing questions in applying reproduction cost theory are whether the *identical* plant is to be reproduced and, if so, whether the plant is to be reproduced under *present* conditions. Strict adherence to theory would give an answer of yes to both these questions, but this would be at variance with what would happen if the plant were to be replaced; any company starting business *ab initio,* as the theory postulates, would construct a modern plant rather than the old out-of-date one. Yet both the federal[105] and the Pennsylvania[106] courts have stated that reproduction cost contemplates reproduction of the actual facilities and not comparable ones of more modern design and greater efficiency. In some situations this produces absurd results: must the cost of obtaining a custom-made boiler be used when the type in actual use is no longer produced? Must the valuation engineer obtain the cost of wrought iron girders, even though steel has completely replaced iron as a construction material? In a few instances, commissions have cut through the identical plant notion and used the cost of modern substitutes.[107] Similarly, they have cut through the requirement of reproduction under present conditions. Costs of digging up and replacing paving over mains and pipes have been disallowed when such costs were not incurred in the original construction.[108]

Views of the Commission 1937-1939.—An examination of the rate cases decided during 1937 shows that reproduction cost was a major factor in determining fair value in all but one case.[109] The Public Utility Commission's apparent adoption of reproduction cost should not, however, be construed as indicating a reluctance to change the valuation process. A majority of the early cases involved temporary rates and, although the act allowed an original cost rate base for that purpose, it would seem that the Commission felt that it was better to reduce rates immediately, although

103. See Raymond, *Engineer's Methods of Inventorying and Valuing Public Utility Properties,* 103 University of Iowa Extension Bulletin 54-56 (April, 1924).

104. See TRACHSEL, PUBLIC UTILITY REGULATION 280 (1947).

105. McCardle v. Indianapolis Water Co., *supra* note 29, at 417, 418.

106. *Cf.* Scranton-Spring Brook Water Co. v. PSC, 119 Pa. Super. 117, 181 Atl. 77 (1935); Chambersburg Gas Co. v. PSC, 116 Pa. Super. 196, 176 Atl. 794 (1935).

107. BAUER AND GOLD, *op. cit. supra* note 1, at 160. In computing the reproduction cost of an elevated railway, the New York Bureau of Valuation used unit prices for steel structures although a great deal of the metal work was of wrought iron, which had become so obsolete that reproduction cost would have been prohibitive.

108. Des Moines Gas Co. v. Des Moines, 238 U.S. 153, 171, 172 (1915); Cedar Rapids Gas Light Co. v. Cedar Rapids, 144 Iowa 426, 437, 438, 120 N.W. 966, 970 (1909).

109. PUC v. Metropolitan Edison Co., 17 Pa. P.U.C. 283 (1937); PUC v. Edison Light & Power Co., 17 Pa. P.U.C. 380 (1937). The book value of fixed capital was used in Philadelphia Electric Co., 17 Pa. P.U.C. 303 (1937) as a base for temporary rates.

to a lesser degree, under a rate base that was certain to be upheld than to attempt a drastic reduction which might not be sustained by the courts. Emphasis is given to this interpretation by the fact that the federal court in the *Edison* case a year later held the temporary rate provisions of the act unconstitutional because of the rate base provision.[110] The United States Supreme Court ultimately sustained the rates in question,[111] but only in Justice Frankfurter's concurring opinion was there an indication that original cost would be a proper measure of fair value.[112]

The Commission took its first definite stand on reproduction cost in the *Solar* case.[113] Three estimates of reproduction cost were submitted. These were based on an inventory and unit prices as of 1931, trended to 1937. The utility's estimates, by two different engineers were $286,990 and $310,329 undepreciated, and $225,822 and $287,892 after deducting of accrued depreciation. An engineer for the complainant presented estimates of $224,575 as undepreciated reproduction cost, and $92,523 after deduction for depreciation. This figure, however, did not include net additions of $13,496 from 1931 to 1937. The Commission, noting that there was a 12 per cent difference between the utility's estimates, both of which were over 100 per cent greater than complainant's, declared that all three were "unsatisfactory, conjectural, and without probative value." [114] It pointed out the fallacy of assuming that the present plant would be reproduced identically and at one time, and criticized reproduction cost as a method of valuation because of its dependence on prices which might change overnight. In summary the Commission said "Reproduction cost new less accrued depreciation is at variance with the prime purpose of utility regulation, namely, to provide adequate service at just and reasonable rates, calculated to return to the investor a fair return upon the *capital* he has contributed to a public enterprize." [115] Authority for rejecting reproduction cost was found in the trend of federal decisions.

Throughout 1938 and 1939 the Public Utility Commission refused to give consideration to reproduction cost.[116] In the *Abington Electric Company* case, the Commission referred to Justice Frankfurter's characterization of the *Smyth v. Ames* rule as a "mischievous formula . . . useless as a guide for adjudication." [117] As a result, in many cases utilities did not even bother to present reproduction cost evidence.

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110. Edison Light & Power Co. v. Driscoll, 25 F. Supp. 192 (E.D. Pa. 1938). The temporary rate provisions were ultimately held constitutional because of their recoupment feature in Beaver Valley Water Co. v. Driscoll, 28 F. Supp. 722, 728 (W.D. Pa. 1939).

111. Driscoll v. Edison Light & Power Co., 307 U.S. 104 (1939).

112. *Id.* at 122.

113. PUC v. Solar Electric Co., *supra* note 84.

114. *Id.* at 381.

115. *Id.* at 388-389.

116. PUC v. Yardley Water & Power Co., 19 Pa. P.U.C. 52 (1938); PUC v. Elizabethville Water Co., 20 Pa. P.U.C. 318 (1939).

117. PUC v. Abington Electric Company, 20 Pa. P.U.C. 170, 175 (1939).

Views of the Superior Court—1939.—The Public Utility Law had its first real test in the Superior Court in the *Solar* case.[118] Perhaps because of the stagnation of judicial thinking about fair value, or perhaps out of a desire to emasculate what it considered undesirable legislation, the court was unwilling to accept the Commission's interpretation of the law. After referring to an opinion delivered before the new law took effect requiring the Public Service Commission to ascertain the *fair value* of the utility,[119] the court declared that the failure to enumerate the items to be considered in fixing the fair value of utility property was not intended to change the law. The elements of value were not included "because the decisions of the United States Supreme Court and of our Supreme Court had definitely settled the principles to be applied by the commission in arriving at such fair value." [120] Thus the rule of *Smyth v. Ames* prevailed despite the intent of the legislature and despite the shift in the attitude of the United States Supreme Court. The Superior Court used its independent judgment and fixed fair value at $175,000, on the basis of the utility's estimates of reproduction cost.

Views of the Commission 1940-1944.—Despite the stinging rebuke by the Superior Court, the Commission did not alter its opinion as to the merits of reproduction cost. In the first important rate case after the Court's reversal, the Commission acknowledged the duty of considering reproduction cost, but it found fair value to be $136,000. This was $6000 greater than depreciated original cost and $44,000 less than depreciated reproduction cost.[121] In later cases, however, the Commission was inclined to split the difference between original cost depreciated and depreciated reproduction cost.[122]

The next attempt by the Commission to acquaint the Superior Court with the realities of the value of reproduction cost estimates value in rate-making came in the 1942 *Peoples* case.[123] Reproduction cost was characterized as "an estimate based upon an hypothesis . . . susceptible to neither outright proof or outright contradiction." [124] The Commission stated that it would not determine the accurateness of the utility's figures but would rather ascertain how closely they corresponded with common sense and weigh them accordingly. Using a 1904 pump as an example, the Commission pointed out that an identical counterpart is unobtainable today and that an engineer has three possible solutions. He may use the cost of a modern pump of equivalent capacity; this departs from the reproduc-

118. Solar Electric Co. v. PUC, *supra* note 51.

119. Brookville v. PSC, 102 Pa. Super. 503, 157 Atl. 513 (1931), *affirmed*, 307 Pa. 194, 160 Atl. 856 (1932). That case involved an application for approval to sell Solar's property and franchises to Pennsylvania Electric Co.

120. Solar Electric Co. v. PUC, *supra* note 51 at 336, 9 A.2d at 457.

121. Kooker v. Perkasie Sewer Co., 21 Pa. P.U.C. 148 (1940).

122. *E.g.*, PUC v. St. Mary's Water Co., 21 Pa. P.U.C. 430 (1940); PUC v. California Water Co., 21 Pa. P.U.C. 770 (1940); *cf.* PUC v. Sunbury Bridge Co., 23 Pa. P.U.C. 171 (1941).

123 PUC v. Peoples Natural Gas Co., 23 Pa. P.U.C. 556 (1942).

124. *Id.* at 564.

tion theory. He may use the cost of a custom-made 1904 model pump; this is ridiculous. Finally, he could trend the cost of the pump to the present by use of price indices; but this method has been rejected by the United States Supreme Court.[125] Furthermore, installation labor today would be of an entirely different type, raising a whole new set of problems. Faced with these difficulties, the Commission did not attempt to reduce the utility's figures to a sensible estimate; reproduction cost was "considered" in fixing fair value, but it was never a factor in the final figure.

The decision to regard reproduction cost as a factor not to be weighed heavily was continued in the *PTC*[126] and *Manufacturers*[127] cases. The former case is notable because in it the Commission, despite an increase in the amount of property since 1938, arrived at a valuation somewhat less than the purported original cost less depreciation figure approved as the basis for the issuance of securities in the 1938 reorganization.[128] Reproduction cost, although found, was characterized as an "illusory certainty;" again the Commission thought reproduction of the existing plant too unlikely to be considered.

The Reaction of the Courts.—The Commission's criticism of reproduction cost produced the Superior Court's strongest expression in favor of it. When the *Peoples* case came up on appeal, Judge Kenworthey declared that the legislative mandate of fair value meant present value.[129] Original cost, which the Commission had used as a major factor in the rate base, was rejected as useless unless there had been no change in cost levels since the construction of the plant or unless it was adjusted to reflect the change by the use of price indices; otherwise it bore no relation to present value. The fact that original cost was authorized for temporary rates was explained by saying that this was for convenience's sake. The Court apparently overlooked the inconsistency in saying that rates could be reduced drastically on a temporary basis but that higher rates would have to be allowed when the final order was issued. As it stands, the decision represents a reaffirmation of the rule of the *McCardle* case at least seven years after the United States Supreme Court had retreated from it. By saying that the meaning of fair

125. West v. Chesapeake & Potomac Tel. Co., 295 U.S. 662 (1935). The chief difficulty is the selection of good index numbers. See TROXELL, *op. cit. supra* note 1, at 295-296. See also Scranton-Spring Brook Water Service Co. v. PSC, 119 Pa. Super. 117, 146, 181 Atl. 77, 89 (1935). The Public Utility Commission at first indicated a dislike for the method. PUC v. Manufacturers Light & Heat Co., 24 Pa. P.U.C. 428, 440 (1943). It is now, however, looked upon as an established procedure. See PUC v. Pennsylvania Telephone Co., Pennsylvania Public Utility Commission, July 10, 1950; Pittsburgh v. Trustees of Pittsburgh Rys. and Pittsburgh Motor Coach Co., Pennsylvania Public Utility Commission, July 25, 1950.

126. PUC v. PTC, 24 Pa. P.U.C. 95 (1942).

127. PUC v. Manufacturers Light & Heat Co., *supra* note 125.

128. Application of Phila. Rapid Transit Co., 19 Pa. P.U.C. 136, 142 (1938). Total assets were found to be $84,860,974. This represented a considerable increase over the $55,400,000 original-historical cost figures which the commission at first approved for capitalization in 18 Pa. P.U.C. 595, 654 (1938). In the rate case, 24 Pa. P.U.C. 95, 124 (1942), fair value was set at $77,000,000.

129. Peoples Natural Gas Co. v. PUC, 153 Pa. Super. 475, 482, 34 A.2d 375, 379 (1943).

value was fixed permanently according to the meaning of the term in 1937 when the act was passed,[130] the majority of the Court avoided an explanation of what had been happening to *Smyth v. Ames* in recent years. The definition of fair value as present value was too extreme; when the case came before the Court again two years later, the Court was careful to point out that the general principles of the *Solar* case were still in effect.[131]

In reviewing the valuation the Commission had placed on the Philadelphia Transportation Company, the Court found absolute reproduction cost too high to be a satisfactory measure of value.[132] Although the majority was of the opinion that the Commission thought the PTC was dying and would not assist in preserving indispensable service, and although they claimed that original cost was of little importance, fair value as found by the court was based on the 1938 reorganization figure.[133] Unfortunately, that figure represented a considerable increase over original cost even then,[134] so the net result was a rate base very close to depreciated reproduction cost. In his dissent, Judge Rhodes attacked reproduction cost valuation as an invitation to ultimate public ownership.[135] He declared that the present "cost of building a replica of an obsolescent plant is not of real significance." [136] Unfortunately his perception of the artificiality of reproduction cost has not as yet caused the Court to repudiate it as a rate base.

Views of the Commission 1944-1945.—The strong language used by the Superior Court in the *Peoples* decision made a great change in the attitude of the commission. When the *Peoples* case was remanded, the Commission accepted the utility's figures on reproduction cost—although it had previously intimated that they were suspect[137]—and set fair value on that basis.[138] Similarly, in the *Elizabethtown*[139] and *Pennsylvania Power & Light*[140] cases, reproduction cost was the dominant factor in determining the rate base. Commissioner Buchanan, dissenting in the latter case, characterized this as utility regulation by the utilities themselves and described the utility's attempt to destroy all traces of its original costs. His position throughout this period was that the Commission should again attempt to use actual legitimate cost depreciated relying on the *Hope*

130. *Id.* at 488-489, 34 A.2d at 382.

131. Pittsburgh v. PUC, 158 Pa. Super. 229, 236, 44 A.2d 614, 617 (1945). Judge Kenworthey had resigned from the Court in 1944.

132. PTC v. PUC, 155 Pa. Super. 9, 23, 30, 37 A.2d 138, 145, 147 (1944).

133. *Id.* at 30, 37A.2d at 147.

134. See note 128 *supra.*

135. See BAUER, TRANSFORMING PUBLIC UTILITY REGULATION (1950) for a modern view of the problem.

136. PTC v. PUC, *supra* note 132, at 39, 37 A.2d at 151.

137. PUC v. Peoples Natural Gas Co., *supra* note 123, at 566. The valuation engineer was a shareholder in the utility's holding company.

138. PUC v. Peoples Natural Gas Co., 24 Pa. P.U.C. 559, 561-562 (1944). The Commission intimated that the close approximation of fair value to original cost depreciated was pure coincidence.

139. PUC v. Elizabethtown Water Co., 25 Pa. P.U.C. 22 (1944).

140. Pfeifle v. Pennsylvania Power & Light Co., 25 Pa. P.U.C. 52 (1945).

decision's ghost-laying effects.[141] However, the Commission has preferred to stick to the *Smyth v. Ames* rule.

The Modern Compromise.—Although the Commission has been giving weight to reproduction cost estimates ever since 1944, it has not been willing to adopt current spot prices. In the *Elizabethtown* case, 1941 spot prices were used to avoid the effect of wartime price rises.[142] In the *Pennsylvania Power & Light* case, the Commission adopted the method used so often by the Public Service Commission; ten-year average prices were used.[143] Similarly, two-year average prices were used in the *Bell Telephone* case in 1949.[144] The adoption of average prices has been approved by the Superior Court.[145] Furthermore, in recent cases, the Court has sustained findings of fair value between reproduction cost and original cost.[146] Thus it appears that the wheel has come full circle. After some thirty-seven years of rate regulation by commission, the net result has been to a large extent a revival of the methods used by the Public Service Commission when it began its work.

Prudent Investment

The ultimate purpose of utility regulation is to protect the consumer from overcharges based on fictitious values. To this end the Public Utility Law gives the Commission power to fix just and reasonable rates.[147] However, its powers extend further; the act provides for the prescription of uniform systems of accounts[148] and the approval by the Commission of transfers of the utility's property[149] and securities.[150] Transfers of these sorts at value derived from reproduction cost might easily result in overcapitalization and an inability to pay capital charges.[151] The utility would

141. *Id.* at 102, 114-115. See also his separate opinions in PUC v. Elizabethtown Water Co., *supra,* note 139 at 42; PUC v. Manufacturers Light & Heat Co., *supra,* note 125 at 471; PUC v. Peoples Natural Gas Co., 23 Pa. P.U.C. 556, 613 (1942); 24 Pa. P.U.C. 559, 564 (1944); 24 Pa. P.U.C. 669, 673 (1944).

142. *Supra* note 139, at 27.

143. *Supra* note 140, at 62-63.

144. P.U.C. v. Bell Telephone Co., Pa. Public Utility Commission, October 17, 1949. The Commission seems to prefer five and ten-year average prices. See PUC v. Pennsylvania Telephone Co., *supra* note 125.

145. Blue Mountain Tel. & Tel. Co. v. PUC, 165 Pa. Super. 320, 67 A.2d 441 (1949); Equitable Gas Co. v. PUC, 160 Pa. Super. 458, 51 A.2d 497 (1947).

146. *E.g.,* Blue Mountain Tel. & Tel. Co. v. PUC, *supra* at 322, 67 A.2d at 443; Pittsburgh v. PUC, 165 Pa. Super. 519, 524, 69 A.2d 844, 847 (1949).

147. See note 96, *supra.*

148. Pa. Stat. Ann., tit. 66, § 1211-1218 (Purdon, 1941).

149. Pa. Stat. Ann., tit. 66, § 1122 (Purdon, 1941).

150. Pa. Stat. Ann., tit. 66, § 1241-1244 (Purdon, 1941).

151. If a reproduction cost appraisal is used as the basis for issuing securities, the common shareholders are at the mercy of the price market. If prices fall, resulting in a lower value for the property and, therefore, a rate reduction, or if the demand ceases to support rates based on reproduction costs, as in Market Street Ry. v. Railroad Commission, 324 U.S. 548, 564 (1945), the utility will be unable to pay a return on its investment and, consequently, will not succeed in attracting necessary new capital.

then have to go through expensive reorganization proceedings or obtain a rate increase to sustain the excessive capitalization. This would render the prescribed original cost accounting systems meaningless. It appears that the Public Utility Law was designed to afford the Commission an opportunity for *integrated* regulation—on an original cost or prudent investment basis.[152] Adoption of prudent investment as a rate base would preserve for the investors the integrity of their capital and assure the consumers the lowest rates possible. During the first seven years of its existence, the Commission made several attempts to adopt a form of prudent investment, despite the hostile attitude of the Superior Court.

Undepreciated Original Cost.—The Public Utility Commission first attempted to use a prudent investment rate base in the *Solar* case. The Solar Electric Company had outstanding capital stock in the amount of $75,000, of which $65,000 represented stock dividends over prior years. The original cost of fixed capital, according to the books, was $197,516. However, included in fixed capital was an item of $60,048 representing a generating plant which was no longer in use since the company bought its power from Pennsylvania Electric Company. The Commission determined that the fixed capital account should be reduced by $55,548 since the building was used only for storage and was no longer used or useful as a standby plant. Following the theory approved by the Supreme Court in the recent *Pacific Gas* case,[153] the Commission adopted original cost undepreciated less the cost of the property considered non-useful. Annual depreciation was allowed on a four per cent sinking-fund basis[154] The Commission declared that it was its desire "that a fair return be allowed the investor upon the dollars which have been furnished and used in the utility business," [155] allowing an amount for yearly depreciation which, when invested in additions to the plant or securities of another concern, would produce an amount sufficient to return the investment. The argument against deducting accrued depreciation was that depreciation of property cannot be said to lessen the dollars of investment in that property.[156] The same method was used in other rate cases decided at the

152. See dissenting opinion of Commissioner Buchanan in PUC v. Peoples Natural Gas Co., 24 Pa. P.U.C. 669, 679 *et seq.*; dissenting opinion of Commissioner Beamish in PUC v. PTC, *supra* note 126, at 152-154 (1942).

153. Railroad Commission v. Pacific Gas and Electric Co., 302 U.S. 388, 397-398 (1938).

154. PUC v. Solar Electric Co., *supra* note 84, at 390-391 (1938). No deduction for depreciation was made because the sinking-fund method was used. Under this method a smaller allowance for depreciation is made, but that sum remains in the rate base and earns a return. The allowed depreciation plus the return on it will theoretically return the whole investment by the time the property wears out. See also 2 BONBRIGHT, *op. cit. supra* note 11, at 1133-1134. The Commission found accrued depreciation of $78,422 which, when deducted from the rate base of $152,601, would give approximately the amount of invested capital.

155. PUC v. Solar Electric Co., *supra* note 84, at 389.

156. Compare Bauer, *The Establishment and Administration of a "Prudent Investment" Rate Base,* 53 YALE L.J. 495 (1944) with Ferguson, *"Cost" as a Substitute for "Value" in Utility Rate Base Determination: A comment on Dr. Bauer's Position,* 53 YALE L.J. 721 (1944). See also 2 BONBRIGHT, *op. cit. supra* note 11, at 1137-1140.

same time,[157] except in the case of taxicab businesses. For these, a rate base derived from original cost less accrued depreciation was used on the ground that the fixed capital was too short-lived to justify the use of the sinking-fund depreciation method.[158]

When the Superior Court made its valuation in the *Solar* case, prudent investment was not even considered. The Court referred contemptuously to the Commission's "alleged justifications for its determination to ignore established legal principles" and the economic theories it "may have evolved to its own entire satisfaction," [159] and fixed fair value on the basis of depreciated reproduction cost. Furthermore, the generating plant was included in the rate base at one-half its reproduction cost, on the basis of testimony by the utility's engineer that it was required as a stand-by plant.

Original Cost Depreciated.—After its defeat in the *Solar* case, the Commission ceased to use undepreciated original cost as a measure of value. However, original cost less accrued depreciation was constantly used to offset the excesses of reproduction cost.[160] Furthermore, the Commission, in its application of the *Smyth v. Ames* rule, refused to allow the inclusion of property which it considered no longer useful in its finding of fair value. The cost of traction facilities which were no longer used was excluded in the valuation of a toll bridge, and both original cost and reproduction cost were further reduced by the deduction of a percentage of the cost of one of the steel girders which had been strengthened to bear the additional weight of the trolleys.[161]

As the Commission again turned away from reproduction cost, it began to use depreciated original cost as a rate base, although it attempted to camouflage its decision by paying lip service to *Smyth v. Ames.* For example, in the *Peoples* case it solemly declared that all factors must be considered since "the factors and processes which result in fairness in one case may result in gross unfairness to utility or consumer in another" and listed seven elements of fair value.[162] In summing up the valuations, the Commission found depreciated reproduction cost to be $39,730,207 and original cost less accrued depreciation to be $22,095,839. The Commission stated that, after considering each element specifically mentioned, it was of the opinion that the fair value as a going concern was $20,000,000. Similarly, in the *Manufacturers* case, the Commission went through the same elaborate mumbo-jumbo and found the reproduction cost depreciated to be $47,602,627, original cost depreciated $24,058,545 and the rate base as a going concern, $24,000,000.[163]

Book Cost Less Book Reserve.—One would normally expect depreciated original cost and book cost less book reserve to be the same. How-

157. See cases cited notes 116 and 117 *supra.*
158. *E.g.,* PUC v. Laurel Line Taxicab Co., 19 Pa. P.U.C. 374 (1938).
159. Solar Elec. Co. v. PUC, *supra* note 51, at 337, 350, 9 A.2d at 457, 463.
160. See cases cited notes 121 and 122 *supra.*
161. PUC v. Sunbury Bridge Co., 23 Pa. P.U.C. 171, 177-178 (1941).
162. PUC v. Peoples Natural Gas Co., *supra* note 123, at 563.
163. PUC v. Manufacturers Light & Heat Co., *supra* note 125, at 455-457.

ever, except in the *PTC* case,[164] which will be discussed later, the Commission's findings of book cost less book reserve more accurately reflected the amount invested in utility property than the figure given as depreciated original cost. This is explained partly by the fact that the book reserve represented the actual dollars of investment recovered in prior years,[165] and partly by the fact that in determining book cost the Commission carefully eliminated all the fictitious and inflated values that had crept into the utility's original cost estimate. For example, in the *Peoples* case, the Commission uncovered a transaction by which the utility had created an appraisal surplus by writing up fixed capital by $3,893,222 and then paid dividends out of the surplus thus created.[166] Later the utility wished to eliminate the write-up, but in order to do so it was forced to debit the depreciation reserve to the extent that the appraisal surplus was insufficient. Thus the write-up was preserved in the depreciated original cost figure. The Commission adjusted this and other items in determining a net book cost of $9,869,793 as opposed to the $22,085,839 given for depreciated original cost.[167] In the *Manufacturers* case, the Commission eliminated a 1914 reproduction cost write-up and obtained a net book cost of $17,718,809.[168] However, although the calculations were made, the majority of the Commission made little use of the figure; at best it was a qualitative factor in causing them to fix fair value slightly below depreciated original cost.

Commissioner Buchanan dissented in both the *Peoples* and *Manufacturers* cases.[169] He rested his findings of fair value on book value and invested capital. In regard to book value, his position was that the book depreciation reserve represented actual dollars recovered out of gross revenue and should, therefore, be deducted in determining depreciated original cost; failure to do this would give the utility a return on the ratepayers' money. Applying the adjusted depreciation reserve to the original cost of the plant in the *Manufacturers* case, he obtained a figure of

164. PUC v. PTC, 24 Pa. P.U.C. 95 (1942).

165. See *infra* p. 400.

166. The bookkeeping entries were as follows:

Writing up fixed capital $3,893,222

Creating appraisal surplus $3,893,222

Subsequent dividends created a $118,799 deficit in earned surplus and reduced the appraisal surplus by $1,500,000. The company then decided to "clear up" its balance sheet and made the following entries:

Reducing the appraisal surplus to zero from $2,393,322
Reducing the depreciation reserves by $2,390,994.

Writing off the excess appraisal of fixed capital of $3,893,222

Changing the deficit in earned surplus to a $722,194 credit figure by a credit of $890,994.

167. PUC v. Peoples Natural Gas Co., *supra* note 123, at 577-580. The effect of the company's entries was to distort the amount of capital amortized by previous charges to the reserve. Although the asset accounts were reduced to original cost, net book value remained substantially the same as before.

168. PUC v. Manufacturers Light & Heat Co., *supra* note 125, at 445-446.

169. PUC v. Peoples Natural Gas Co., *supra* note 123, at 613-617; PUC v. Manufacturers Light & Heat Co., *supra* note 125, at 471-481.

$12,405,347 for depreciated original cost—approximately one-half the figure found by the majority and used by them as fair value. He admitted that the result appeared drastic, but he felt that this represented all of the original investment in fixed capital that had not been recovered out of income.[170] From a prudent investment point of view, his analysis is quite sound. Book cost, as he would see it, represents the dollars of capital originally invested or reinvested in utility property, while book reserve represents the dollars of that investment that have been recovered out of earnings. The rate base is the number of dollars the owners have put into the business, and not in any sense the value of the assets into which the dollars have been transformed. This method more accurately reflects the capital *still* prudently invested than the method used in the *Solar* case, although it may seem to penalize the utility for its prior accounting practices.[171]

Invested Capital.—A third "element of value" used by the Commission in the *Peoples* and *Manufacturers* cases was invested capital. However, this was, like net book cost, used more as a qualitative than a quantitative factor. In the *Peoples* case, invested capital was defined as the number of dollars invested in the business either directly or by allowing surplus to accumulate. The Commission declared that "although we will not consider invested capital as being a direct factor in fair value determination, it does perform a very important function by showing us at what point a fair value finding would work a hardship upon respondent's owners." [172] Invested capital was found to be $12,744,126, and bore little actual relation to the final fair value figure. In the *Manufacturers* case, the invested capital was $15,343,125, lower than any other figure found by the majority of the Commission.[173] Commissioner Buchanan, however, placed considerable importance on invested capital in relation to the other elements of value. In the *Peoples* case, he declared that the difference between the $20,000,000 found as fair value and the net invested capital indicated to him that the utility was earning a return on $7,000,000 of the ratepayers' money.[174] To assure the consumers the cheapest possible service and at the same time preserve the integrity of the investment, rate regulation should be integrated with all other phases of utility regulation, such as control over the issuance of securities. The goal should be to keep the amount of invested capital approximately equal to a rate base determined by prudent investment methods. Divergence would indicate either inflated values in the rate base or overcapitalization which would itself lead to attempts to swell the rate base.

170. PUC v. Manufacturers Light & Heat Co., *supra* note 125, at 476.
171. See 2 BONBRIGHT, *op. cit. supra* note 11, at 1133-1140. To some extent the method used in the *Solar* case involves a double return. The investor gets a return on a greater part of his investment while an amount equal to the investment is being built up to reinvest.
172. PUC v. Peoples Natural Gas Co., *supra* note 123, at 591.
173. PUC v. Manufacturers Light & Heat Co., *supra* note 125, at 446.
174. PUC v. Peoples Natural Gas Co., *supra* note 123, at 616.

The Special Problem of the PTC.—A striking example of the effects of utility regulation that is not integrated is the *PTC* case in 1942.[175] The history of this proceeding dates back to 1938 when the Philadelphia Rapid Transit Company was reorganized and became the PTC. When the Commission first considered the reorganization plan, it found original historical cost less accrued depreciation to be $55,400,000, and refused to approve the plan.[176] However, upon reconsidering the matter, the Commission allowed a valuation of $84,860,974 in order to arrive at a speedy solution of the problem.[177] When the rate case came up in 1942, the Commission discovered the dangers of not adopting a prudent investment system of regulation. Although two of the commissioners wished to use original cost depreciated as a rate base, the majority compromised on a depreciated book cost, derived from the Commission's $84,860,974 figure, less certain items the Commission felt were not properly included in fixed capital. The final rate base was $77,000,000. Commissioner Beamish, in his concurring opinion, vigorously condemned fair value as found. He declared that the proceeding was "a legalistic subterfuge devised for the purpose of validating fraudulently issued securities for which no cash has ever been paid. . . . In this case, instead of a rate base that should be solid as a rock, we are attempting to make a rate base of a huge mud pie." [178] Unfortunately, the Superior Court accepted fair value as ultimately found in the reorganization case as res judicata for the purposes of rate regulation and fixed fair value at $93,000,000.[179]

Prudent Investment Today.—Judge Kenworthey very carefully drew the line between fair value and prudent investment in the *Peoples* case. Invested capital was rejected as no evidence of value, as was net book value, which he characterized as "nothing more than a bookkeeping figure." [180] Since that time, the Commission has not considered either figure in any way despite Commissioner Buchanan's efforts to have the issue resubmitted to the Court in the light of the *Hope* decision.[181] The Commission today is definitely committed to fair value,[182] although it continues to consider depreciated original cost as evidence of value. To the extent that it curbs the excesses of reproduction cost, original cost performs a vital function, but it is a poor substitute for prudent investment rigidly adhered to.

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175. See note 126 *supra.*
176. Application of Phila. Rapid Transit Co., 18 Pa. P.U.C. 595 (1938).
177. Application of Phila. Rapid Transit Co., 19 Pa. P.U.C. 136, 139, 142 (1938). The commission later placed itself on record as not being committed to adopt the reorganization figure in later proceedings. PUC v. Phila. Rapid Transit Co., 20 Pa. P.U.C. 699, 702 (1939).
178. PUC v. PTC, *supra* note 126 at 152-153.
179. PTC v. PUC, *supra* note 132, at 30, 37 A.2d at 147.
180. Peoples Natural Gas Co. v. PUC, *supra* note 129, at 485, 34 A.2d at 381.
181. PUC v. Peoples Natural Gas Co., 24 Pa. P.U.C. 559, 570-574 (1944).
182. PUC v. Equitable Gas Co., 25 Pa. P.U.C. 302 (1945); PUC v. Bell Tel. Co., *supra* note 144. Fair value, however, does not mean merely reproduction cost.

Special Valuation Problems

No matter what theory the rate base is predicated on, there are certain items of property included in the rate base which require special treatment. Land, for example, has always presented a difficult problem, although it received much more detailed treatment from the Public Service Commission than it has from the Public Utility Commission. This lack of detailed treatment may be laid to the fact that the present commission has been much more concerned with the controversy between fair value and prudent investment than with the particular application of either theory in detail.[183]

In dealing with land, the Public Service Commission did not adhere to any one method.[184] Favorable location of the property was made the basis for an increased valuation in the *Ben Avon* case.[185] This was upheld by the Superior Court,[186] and the Commission used the same method in the *Scranton-Spring* case.[187] However, in fixing fair value of a bridge company, it refused to capitalize the bridge's location.[188] In line with its predilection for reproduction cost, the Commission generally used market value of land in preference to actual cost,[189] but it varied on the question of whether other uses for land in the same vicinity should be considered.[190] The Superior Court was generally of the opinion that these alternative uses were relevant.[191] Wasting assets such as gas lands were included in the rate base at present value, even though the actual cost of acquisition might have been very slight.[192]

The Commission and the courts split on the inclusion of seldom needed plant capacity in the rate base. The Commission was inclined to consider facilites kept for standby or emergency purposes as property no longer used or useful for the public convenience, and refused to consider their value in determining the proper rate base.[193] In general the courts were more in favor of liberal allowances, basing inclusion at full reproduction cost on the utility's exercise of judgment regarding future needs and emergencies.[194]

183. The question has more often been whether the property was used or useful in the public service.

184. Buckwalter, *op. cit. supra* note 46, at 181-192.

185. Ben Avon Borough v. Ohio Valley Water Co., *supra* note 68, at 986.

186. Ben Avon Borough v. Ohio Valley Water Co., *supra* note 56, at 582-583.

187. Scranton v. Scranton-Spring Brook Water Service Co., *supra* note 65, at 31.

188. Herring v. Clark's Ferry Bridge Co., 8 Pa. P.S.C. 61, 69 (1926), *affirmed sub nom.* Clark's Ferry Bridge Co. v. PSC, 108 Pa. Super. 49, 72-74 165 Atl. 261, 269 (1933). This view was ultimately sustained by the United States Supreme Court in 291 U.S. 227, 237, 238 (1934).

189. Lehighton Chamber of Commerce v. Lehighton Water Supply Co., 10 Pa. P.S.C. 142, 146 (1929).

190. *Compare* Scranton v. Scranton-Spring Brook Water Service Co., *supra* note 65, at 30 *with* Grubb v. Berry Springs Water Supply Co., 9 Pa. P.S.C. 698, 700 (1929).

191. Lehighton Water Supply Co. v. PSC, 99 Pa. Super 574 (1930).

192. Grove City v. Union Heat & Light Co., 11 Pa. P.S.C. 792 (1933).

193. Thayer v. Beaver Valley Water Co., 2 Pa. P.S.C. 430, 443, 444 (1917); *see* Brubaker v. Millersburg Home Water Co., 8 Pa. P.S.C. 193, 196 (1926).

194. Beaver Valley Water Co. v. PSC, 76 Pa. Super. 255, 261, 262 (1921).

Expensed Items.—In a number of cases the Public Utility Commission has been faced with a problem apparently not dealt with by its predecessor—the problem of attempts to capitalize items of propery and labor which had already been charged to operating expenses. For example, original cost as found in the *Peoples* case included some $7,558,226 of property and overheads which had been charged to expense in the past. The Commission, reasoning that the cost of these items had already been recovered from the consumer, deducted this sum in arriving at original cost for rate purposes.[195] The Superior Court at first declared that these items were includable as a part of fair value,[196] but in a subsequent appeal it changed its mind.[197] Since then, the Commission has consistently eliminated expensed items.[198]

Intangible Items.—A number of items are included in the rate base that are not represented by any physical assets. These items, with the exception of the ambiguous concept of going concern value, are properly capitalizable as essential costs in the setting up of the utility's business just as the costs of tangible items—land, distribution facilities, and the plant itself—are properly capitalized.[199] Nevertheless, the utmost care must be exercised, particularly in reproduction cost estimates, in the valuation of intangible items since, by their nature, they afford immense possibilities for swelling the rate base by figures based purely on the utility's imagination.[200] Intangible items fall into three main categories—overheads during construction, cost of financing, and going concern value—each of which has a separate valuation treatment.

Overheads.—Overheads during construction include allowances for omissions and contingencies, for engineering, for organization, promotion, and administration expense, and for interest expense during the period of construction. These are computed as percentages of the sum of the physical property (less land) and the overheads already computed.[201] As a result, an error in the allowance for omissions and contingencies will be included in the allowances for all other construction overheads. Despite the dangers involved, the Public Service Commission was generally moderate in its allowances for overheads; the average total was from twelve to fifteen per cent of total reproduction cost.[202]

195. PUC v. Peoples Natural Gas Co., *supra* note 123, at 584-585 (1942).

196. Peoples Natural Gas Co. v. PUC, *supra* note 129, at 492-493, 34 A.2d at 384. See dissenting opinion of Judge Rhodes at 512-513, 34 A.2d at 395.

197. Pittsburgh v. PUC, 158 Pa. Super. 229, 236-238, 44 A.2d 614, 617 (1945).

198. PUC v. North Penn Gas Co., 25 Pa. P.U.C. 319, 322-323 (1945).

199. See MONTGOMERY, AUDITING 225, 229 (7th ed. 1949).

200. See TROXELL, *op. cit. supra* note 1, at 309. See also Hale, *op. cit. supra* note 11, at 1123.

201. The procedure for computation is set forth at length in Chambersburg v. Chambersburg Gas Co., 11 Pa. P.S.C. 583, 585-603 (1932) and in BUCKWALTER, *op. cit. supra* note 46, at 228.

202. BUCKWALTER, *op. cit. supra* note 46, at 225-229. BAUER AND GOLD, *op. cit. supra* note 1, at 183, state that sixteen per cent is a reasonable allowance.

The Superior Court in the *Solar* case set forth at length the justification for the inclusion of intangibles in the rate base under the Public Utility Law. Since the Commission had not made any findings as to what allowances were proper in the reproduction cost estimate, the court undertook to make independent findings for the various intangibles and allowed 17½ per cent of the depreciated reproduction cost of the physical property for overheads and cost of financing.[203] The Commission has not attempted to dispute the propriety of including overheads and, as a rule, it has found the utility's figures reasonable.[204] However, in the *Manufacturers* case the Commission criticized the allowance of an item of expense for engineers competent to design the most efficient and appropriate system "solely for the prosaic purpose of reproducing the existing system." [205] The Commission admitted that the inconsistencies were largely due to the hypothetical nature of reproduction cost and made no specific adjustments of overheads. Even today, although in most instances the utility's figures are accepted, the Commission retains a somewhat skeptical attitude towards the utilities' more unusual claims; in the recent *Bell Telephone* case engineering overheads for the smaller buildings were disallowed since it appeared that the utility did not make a practice of using engineers for such minor construction.[206]

Since accounting theory permits the capitalization of overheads during construction as a necessary part of making the property ready for service, it would, therefore, seem that those overhead expenses which have actually been incurred are a part of original cost for rate-making purposes. However, mere proof that the expenses were incurred is not enough. The utility should be required to prove that the services were performed and that they were actually paid for—requirements for which the Commission recognized the need in the *Solar* case, but which it did not then enforce.[207] In addition, the utility should be required to show that the overhead costs have not been recovered out of earnings, for it is a common practice to write these costs off against income in later years.[208] The Commission pointed out the inconsistency of allowing a return on recovered overhead expense in the *Manufacturers* case, where it treated amortized overheads in the same manner as it had treated expensed items of tangible property.[209]

Cost of Financing.—The inclusion in the rate base of cost of financing is predicated upon the fact that some of the dollars invested must be used to assemble capital with which to do business. To the extent that cost of

203. Solar Elec. Co. v. PUC, *supra* note 51, at 355-364, 9 A.2d at 465-469.

204. PUC v. Peoples Natural Gas Co., *supra* note 123, at 566, 567.

205. PUC v. Manufacturers Light & Heat Co., *supra* note 125, at 435-437.

206. See note 144, *supra.*

207. PUC v. Solar Electric Co., *supra* note 84, at 374.

208. *See* A.I.A. Accounting Research Bulletin No. 24, pp. 199-200 (Dec. 1944).

209. *See* PUC v. Manufacturers Light and Heat Co., *supra* note 125, at 452-453. See, with regard to the requirements of proof for allowances for intangibles, Burt and Highsaw, *Developmental Costs Under the Prudent Investment Theory,* 94 U. OF PA. L. REV. 1, 13-17 (1945).

financing represents the cost of obtaining money—underwriting, printing, and solicitation expense—it represents a capitalizable item, but discount on securities, being essentially an adjustment of the interest rate, is generally excluded in cost of financing allowances.

Cost of financing had a stormy history under the Public Service Company Act. At first, the Commission decided to exclude it entirely,[210] but the Superior Court directed that both brokerage and discount be included.[211] Ultimately, the Supreme Court of Pennsylvania adopted the views outlined in the preceding paragraph.[212] Thereafter, the controversy was mainly over whether the allowance should be based on the costs the utility actually incurred or on the costs the utility might incur in reproducing the capital structure at the time of the valuation. The Commission was inclined to favor the former view,[213] but the Superior Court declared that an allowance should be made, whether or not any expense had been incurred originally.[214]

When the Public Utility Commission first considered cost of financing, the item was completely excluded as not being connected with the rate base of the property. The Commission declared that if the cost of obtaining money was a vital factor it should be considered in fixing the rate of return.[215] The Superior Court, however, followed its earlier decisions under the Public Service Company Law and included brokerage and the costs of printing, registration, and distribution in the rate base. However, the Court limited the allowance to the cost of marketing bonds; it held that a utility was not entitled to capitalize the cost of marketing its common stock.[216] While the majority of jurisdictions take the position adopted by the Commission in the *Solar* case,[217] it would seem that brokerage and the various other costs are a necessary element in the cost of furnishing utility service and should be included in the rate base, whether they stem from the marketing of bonds or stock.[218] Nevertheless, Superior Court's ruling has crystallized the law on this point in Pennsylvania. In determining reproduction cost, the Commission has since made allowances for costs of financing the new plant based on the amount that might be

210. Thayer v. Beaver Valley Water Co., *supra* note 76, at 457-458 (1916); *See* Ben Avon Borough v. Ohio Valley Water Co., *supra* note 68, at 976.

211. Ben Avon Borough v. Ohio Valley Water Co., *supra* note 56, at 591-593 (1917).

212. Ben Avon Borough v. Ohio Valley Water Co., 271 Pa. 346, 356-357, 114 Atl. 369, 373 (1921), reversing the stand taken in 260 Pa. 289, 308, 103 Atl. 744, 749 (1918), where the court declared that brokerage should be considered in the rate of return.

213. Enck v. Biglersville Water Co., 7 Pa. P.S.C. 158 (1925).

214. Erie v. PSC, 96 Pa. Super. 42, 51-52 (1929).

215. PUC v. Solar Elec. Co., note 84, at 383-385 (1938).

216. Solar Elec. Co. v. PUC, *supra* note 51 at 358-361, 9 A. 2d at 466-468.

217. *Re* Rochester Gas & Electric Corp., 33 P.U.R. (N.S.) 393, 452-453 (N.Y. 1940); Pub. Serv. Commission v. Utah Light & Power Co., 50 P.U.R. (N.S.) 133, 153 (Utah 1943); *Re* Alabama Power Co., 43 P.U.R. (N.S.) 37, 47 (FPC 1941).

218. *Cf. Re* British Columbia Electric RR., 53 P.U.R. (N.S.) 438, 455 (1943).

financed by the sale of bonds.[219] In the *Pennsylvania Power and Light* case, the commission reasoned that preferred stock was more in the nature of a bond than a stock and made an allowance for cost of financing by the sale of preferred stock.[220]

Going Value.—Going value or going concern value is one of the most persistent problems in valuation proceedings. It is said not to be good-will, for good-will is a capitalization of prospective earnings built up through competition and, therefore, is too closely allied with market value to be acceptable. Going value, at least in theory, is the value, over and above the "bare bones" of the plant, that the utility has acquired as a going concern.[221] No sensible measurement of going value has ever been devised, and utilities have seized upon it as an easy way to inflate the rate base.[222] The Public Service Commission never specifically defined going value, but the decisions of the Superior Court have generally equated it to the cost of developing a profitable business.[223] In early cases the Public Service Commission made no separate allowance for going value.[224] The Superior Court stated several times that it wanted a specific allowance, but the Commission did not comply until the Pennsylvania Supreme Court spoke in the *Erie* case.[225] However, the Superior Court began to reject allowances for going value unless there was evidence of a lag in earnings besides the records of the utility, but continued to allow it when there was evidence to support the utility's claim.[226]

The Superior Court in the *Solar* case stated that going value might exist in two forms.[227] The first of these was an efficient force of employees developed over the years. No evidence of any such special value appeared. The second form that going value might take was a lag in fair return before the public began to take advantage of the source. Again no evidence was found to sustain a special allowance. Since that decision the Public Utility Commission has never itself felt called upon to make an allowance for going value, and on this point it has never been reversed by the court. The reason for this is apparent from the fact that utility service, being innately necessary and monopolistic, should be successful from the start. Furthermore, in a prudent investment rate base, going value has no place; the fact that a return is earned is of itself a sufficient

219. PUC v. Elizabethtown Water Co., *supra* note 139, at 28-29.

220. Pfeifle v. Pennsylvania Power & Light Co., *supra,* note 140, at 59-60. Commissioner Buchanan dissented.

221. The distinction between this and good-will is hard to perceive. Any value over and above the "bare bones" of the plant is essentially a potential income value, which is nothing but good-will.

222. See TROXELL, *op. cit. supra* note 1, at 319-321.

223. Beaver Valley Water Co. v. PSC, *supra* note 194, at 269-270 (1921).

224. See note 52 *supra.*

225. Erie v. PSC, 278 Pa. 512, 534, 123 Atl. 471, 479 (1924). The first case in which the commission made a separate allowance was York v. York Water Co., 6 Pa. P.S.C. 666, 679-680 (1924).

226. Scranton-Spring Brook Water Service Co. v. PSC, 105 Pa. Super. 203, 220-221, 160 Atl. 230, 237 (1932); Cheltenham & Abington Sewerage Co. v. PSC, 122 Pa. Super. 252, 267, 186 Atl. 149, 156-157 (1936).

227. Solar Elec. Co. v. PUC, *supra* note 51, at 361-364, 9 A.2d at 468-469.

allowance for going concern value, and past losses have been recovered long ago.[228]

Working Capital.—In every rate case some allowance must be made for cash working capital and materials and supplies. Fortnightly payrolls must be met, and replacements of minor parts occur frequently. Therefore, the utility must always keep a supply of money and materials on hand. Since part of the investor's capital must be tied up in working capital, that amount must be included in the rate base. The practice of the Public Utility Commission has been to allow sufficient working capital to take care of the utility's needs for current operating expenses for from one and one-half to three months.[229]

Depreciation—Loss in Value or Amortization of Cost?

The determination of the proper allowance for accrued depreciation has been one of the most perplexing aspects of rate regulation.[230] Part of the difficulty stems from uncertainty over which method should be used to calculate the allowance; the divergence of opinion has already been indicated to some extent in the section on the Public Service Commission.[231] There is, however, a more basic difficulty which is not always perceived: there are two different theories as to the function depreciation is intended to serve. Fair value rate regulation adopts one of these theories and prudent investment rate regulation the other. Under the former theory, accrued depreciation connotes the extent of the property's loss in value from wear and tear. It is an estimate just as fair value is an estimate. On the other hand, accounting theory conceives of the function of depreciation as the amortization or spreading out of the cost of the property over its life.[232] Accrued depreciation under this theory represents the amount of the cost of (or investment in) the property already recovered and is evidenced by the actual charges against income in past years; no problem of estimating depreciation by consideration of results obtained by various methods arises.[233] Thus, if prudent investment is adhered to, the problems surrounding depreciation virtually disappear. Unfortunately, the Public Utility Commission has, as a rule, regarded depreciation as loss in value. In the *Peoples* case, for example, it stated that it was attempting to determine how far the property had moved along the road from newness to junk.[234]

228. See Troxell, *op. cit. supra* note 1, at 326-327.

229. PUC v. St. Mary's Water Co., 21 Pa. P.U.C. 430, 438-439 (1940); PUC v. Equitable Gas Co., 25 Pa. P.U.C. 302, 309 (1945).

230. See Troxell, *op. cit. supra* note 1, at 328-371; 1 Bonbright, *op. cit. supra* note 11, at 177-215.

231. See text *supra* pp. 380-381.

232. A.I.A. Accounting Research Bulletin No. 22, pp. 179-180 (May 1944); A.I.A. Accounting Research Bulletin No. 20 (Nov. 1943).

233. See generally Lippitt, *Net Investment Rate Making—The Deduction for Depreciation*, 62 Harv. L. Rev. 1155 (1949).

234. PUC v. Peoples Natural Gas Co., *supra* note 123, at 569.

Methods of Ascertaining Loss in Value.—The classic method of estimating loss in value, and the one continually advocated by the utilities, is the observation method. This method is essentially a part of the reproduction cost process, since the engineer at the time at which he inventories the property also appraises its condition. Thus reproduction cost less the observed depreciation should give the present value of the property. However, the method is seriously defective since it takes into account only visible physical deterioration and makes no provision for obsolescence or inadequacy.[235] Furthermore, its accuracy is largely dependent on the extent of the inspection. In the *Peoples* case, the Commission called attention to its limitations.[236] The utility engineer made 1479 observations of the pipe lines. Thus of a total of 21,649,000 feet of pipe, about 5800 were examined. Furthermore, the Commission found a further fallacy in the method of estimating the per cent condition of the property. For meters, which had an average age of 23½ years, which was about half their useful life, the utility engineer estimated loss in value at sixteen per cent. This would result in an estimated life of 141 years. The Commission stated that it was illogical to assume that each year was not an equal contributor toward final retirement, at least in *potential* depreciation.

Two methods of computing accrued depreciation attempt to take into account potential depreciation and spread the loss in value equally over the life of the property. By far the simplest and certainly the most commonly used is the straight-line method which involves estimating the total useful life of the property, taking into account such factors as probable obsolescence and inadequacy, and calculating how much the property has lost in value by the formula: age over estimated life times the value of the property new gives accrued depreciation to date.[237] Despite the apparent definiteness produced by the formula, the results reached are only a guess. For example, a certain machine may cost $100,000 and have an expected life of ten years. Under the straight-line method, accrued depreciation after five years will be $50,000, but in the meantime a new process may have been invented or the machine may have been heavily used[238] with the result that the present machine is now worth only $20,000. On the other hand, the original estimate of the machine's life may have been too low; the machine may be good for ten years more.

The sinking-fund method is similar to the straight-line method in that it is based on estimated lives of the property and in that it makes use of equal annual charges against earnings. However, the annual charges against earnings are smaller under the sinking-fund method, since the

235. 1 BONBRIGHT, *op. cit. supra* note 11, at 204-205.

236. PUC v. Peoples Natural Gas Co., *supra* note 123, at 569-572.

237. This formula is generally used in calculating the annual charges against income under the accounting theory. See MONTGOMERY, *op. cit. supra* note 199, at 268.

238. Neither the straight line nor the sinking-fund versions of the age-life computation take into account extent of use, except insofar as the estimated age is periodically recomputed.

theory behind the method assumes that the amounts set aside each year will be invested at compound interest, usually from three to four per cent. The sum of the annual depreciation charges plus the accumulated interest will add up to the cost of the asset by the time it is worn out. If the sinking-fund method is to be used in rate-making, the rate base should be undepreciated cost.[239] This has been perceived by the Railroad Commission of California,[240] which uses this method almost exclusively, and by the Pennsylvania Public Utility Commission in the *Solar* case.[241] However, attempts have been made to use the sinking-fund method as a measure of loss in value, and in these cases accrued depreciation has been deducted from the rate base.[242] This is a function the sinking-fund method was never intended to serve.

In those cases where depreciation is treated as loss in value, the Public Utility Commission has never finally committed itself to any particular method; it adopts in each case a judgment figure based upon what it feels to be competent evidence.[243] For example, in the *Perkasie* case chief reliance was placed upon the sinking-fund method since the utility's observed depreciation estimate was simply an estimate of the expense necessary to keep the facilities in working condition.[244] On the other hand, the Commission used both computations on the straight-line method and observation data in the *Peoples* case, declaring that use of either method without the other would be ridiculous.[245] In the *Pennsylvania Power & Light* case a flat fifteen per cent estimate was used in preference to the utility's mortality table computation and the Commission engineer's observation and obsolescence estimates.[246] In general, the Commission prefers the straight-line method because of its comprehensiveness and equalizing tendencies.

That the Superior Court regarded depreciation as loss in value was evident from the *Peoples* case. Judge Kenworthey stated that there are only two factors that are relevant—physical deterioration and obsolescence. He went on to criticize the Commission's reliance on the age-life method and said "it seems that there can never be an adequate substitute for actual observation of the condition of the property coupled with a study of its state of obsolescence." [247] The Court's belief in observed depreciation was emphasized in the *PTC* case.[248] Logically, the position is irrefutable, pro-

239. 2 BONBRIGHT, *op. cit. supra* note 11, at 1134.
240. *E.g.*, San Diego v. San Diego Consolidated Gas & Electric Co., 7 P.U.R. (N.S.) 443, 466-467 (Cal. 1935).
241. PUC v. Solar Electric Co., *supra* note 84, at 389.
242. *E.g.*, Idaho Power Co. v. Thompson, 19 F.2d 547, 565 (D. Idaho 1927); PSC v. Cheltenham & Abington Sewerage Co., 14 Pa. P.S.C. 76, 86 (1935).
243. PUC v. Bell Tel. Co., *supra* note 144.
244. Kooker v. Perkasie Sewer Co., *supra* note 121 at 152-153.
245. PUC v. Peoples Natural Gas Co., *supra* note 123, at 570-576.
246. Pfeifle v. Pennsylvania Power & Light Co., *supra* note 140 at 69-80. The commission engineer's study was too limited for the Commission to rely on it absolutely.
247. Peoples Natural Gas Co. v. PUC, *supra* note 129, at 491, 34 A.2d at 383.
248. PTC c. PUC, *supra* note 132, at 25-27, 37 A.2d at 145-146.

vided that depreciation represents loss in value, and provided that the inspection is thorough enough. The Commission, being more aware of administrative problems, seems to take a more liberal attitude towards the merits of the observation method. In recent cases, along with its compromise on fair value, the Court has been more liberal toward the age-life method. An age-life computation was sustained in the *Schuylkill Valley Lines* case,[249] and a judgment figure of 38 per cent, between estimated observed depreciation of 27.9 per cent and the book reserve of 42.5 per cent, was approved in the *Blue Mountain* case.[250]

Depreciation as Amortization of Cost—Book Reserve.—Although the Commission has at times used the book reserve as a measure of loss in value,[251] the main function of the reserve is to show the amortization of cost. This was recognized in the *Peoples* case and the reserve was applied in determining net book value, but the reserve had no part in the final rate base.[252] However, in the *Manufacturers* case the Commission took a further step towards a prudent investment rate base. Accrued depreciation was determined by the ratio of the retirement reserve to the depreciable book cost,[253] following a method advocated by Commissioner Buchanan in the *California* case.[254] While the result reached does not reflect the true amortized investment which can be determined only by the deduction of the actual reserve, it does reflect the percentage of the investment that *should have* been amortized. By this method the investor does not suffer from the excessive charges made in the past and the consumer does not get a windfall; he pays what he would have had to pay had the prior regulation been proper. The *Manufacturers* case stands as a unique incident in the history of the Public Utility Commission. Because of the Court's opinion in the *Peoples* case no further experiments were made with depreciation as amortization of cost. Although the decision has been reversed by implication, the question has never been directly passed upon by the Superior Court.[255]

Conclusion

At present, fair value under the Public Utility Law appears to be a synthesis of reproduction cost at average prices and original cost, less a judgment estimate of loss in value. The merits of such a rate base are at least open to question. Certainly a prudent investment rate base would

249. Schuylkill Valley Lines v. PUC, 165 Pa. Super. 393, 401-402, 68 A.2d 448, 453 (1949).

250. Blue Mountain Tel. & Tel. Co. v. P.U.C. 165 Pa. Super. 320, 326-327, 69 A.2d 441, 443-445 (1949).

251. PUC v. California Water Co., 21 Pa. P.U.C. 770, 786-789 (1940).

252. PUC v. Peoples Natural Gas Co., *supra* note 123, at 581-584. The reserve after adjustment was $29,414,196. The depreciation deducted from original cost was $26,252,863.

253. PUC v. Manufacturers Light & Heat Co., *supra* note 125, at 446-452.

254. PUC v. California Water Co., *supra* note 251 at 793-794 (dissenting opinion).

255. *See* Peoples Natural Gas Co. v. PUC, *supra* note 129, at 491, 34 A.2d at 383.

make for greater administrative efficiency.[256] However, there are certain considerations which favor reproduction cost. The popular argument stems from the fact that the purchasing power of the dollar fluctuates; reproduction cost rate bases are said to give a return on approximately the purchasing power invested. A more subtle argument depends on the theory that under competitive conditions rates would be based on the cost of reproducing the service.[257] On the other hand, the advocates of prudent investment point to the advantages of integrated regulation and to the fact that the investor makes no sacrifice. He may not get competitive profits, but he gets a steady return, high enough to attract more capital, on the money which actually benefits the public.[258] For better or for worse, most of the country has adopted prudent investment; Pennsylvania belongs to a minority of nine states which still require reproduction cost evidence.[259]

The Problem of the Obsolete Utility.—In his dissent in the *Hope* case, Justice Jackson argued strongly against the use of any rate base at all. He admitted that the prudent investment theory worked well under some circumstances, but he declared that it has "no rational application where there is no such relationship between the investment and the capacity to serve." [260] Some utilities today have, through the development of other types of service, lost the ability to support their investment by the service being rendered. These utilities have reached the point of maximum rates. If rates are raised, the use of the service will drop, with the result that the revenue is no greater, and perhaps less than before.[261] The present situation of the PTC indicates that street railways are at least approaching the position of obsolete utilities. Since the 1942 rate case, rising wages as well as higher operating costs have forced the PTC on five different occasions to seek increased rates.[262] The Superior Court has twice sus-

256. See TROXELL, *op. cit. supra* note 1, at 299-300.

257. See 2 BONBRIGHT, *op. cit. supra* note 11, at 1086-1089. The argument that the cost of reproducing the service should be the measure of fair value assumes that reproduction cost is the cost of reproducing an efficient modern plant rather than a plant substantially identical with the old one, while the legal concept is based on the identical plant notion. See BAUER AND GOLD, *op. cit. supra* note 1, at 155-172.

258. *See* Southwestern Bell Tel. Co. v. P.S.C., 262 U.S. 276, 306-310 (1923) (dissenting opinion). See also 2 BONBRIGHT, *op. cit. supra* note 11, at 1084-1086; TROXELL, *op. cit. supra* note 1, at 300-301; TRACHSEL, *op. cit. supra* note 104, at 285-286.

259. TRASCHEL, *op. cit. supra* note 104, at 282.

260. FPC v. Hope Natural Gas Co., *supra* note 40, at 649 (dissenting opinion). Justice Jackson was thinking of the differences in amount of capital that might be invested to get the same amount of natural gas.

261. See TROXELL, *op. cit. supra* note 1 at 25-44. Inelasticity of demand is disappearing in fields where other types of service are available. For example, water companies must keep their rates relatively low in rural areas because of the consumer's opportunity to have a private artesian well drilled. Since 1945, the Commission has found it unnecessary to make a finding of fair value in over half of its cases. See, *e.g.*, PUC v. North Penn Gas Co., 25 Pa. P.U.C. 319 (1945); PUC v. Longacre Park Heating Co., 26 Pa. P.U.C. 176 (1946); PUC v. Phillips Gas & Oil Co., 26 Pa. P.U.C. 325 (1947).

262. See Philadelphia Inquirer, November 30, 1950, p. 10, col. 6.

tained increases,[263] and two more cases have been before the Commission.[264] In the first three of these cases, there was no finding of fair value; the Commission indicated late in 1949 that the fair return on fair value formula was of little practical significance in dealing with the PTC.[265] The latest case, decided just as this Note was being prepared for publication, would seem to indicate a retreat from this position. The Commission allowed a 6.5 per cent return on a valuation of $93,000,000. However, this figure can hardly be said to represent the present fair value of the system. The PTC submitted various measures of value including a depreciated original cost of $109,686,000 and depreciated reproduction cost estimates based on both five-year average and spot prices ranging from $164,802,000 to $213,505,000. The Commission stated that it was not convinced that any of these estimates should be taken at face value and adopted the figure found as fair value by the Superior Court in 1944.[266] The present order should prevent deficit operations and provide some return for the shareholders, at least until the margin of profit is wiped out by further wage increases.[267] Yet in the battle over the finances of the PTC, the interests of the public, the employees, and the investors are in conflict. Ultimately the interests of one of these groups must be subordinated and it would seem that it will be, as it has been in the past, the investors who lose. Relief for them is subject to the delays inherent in rate proceedings[268] and to the rising sentiment that conditions do not warrant giving them a return on their investment.[269] Under such circumstances, the Superior Court's concept of fair value becomes meaningless. The Constitution and the law merely prevent confiscation; they do not guarantee a fair return.[270]

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263. Philadelphia v. PUC, 162 Pa. Super. 425, 57 A.2d 613 (1948); Philadelphia v. PUC, 164 Pa. Super. 96, 63 A.2d 691 (1949).

264. Philadelphia v. PTC, Pennsylvania Public Utility Commission, September 28, 1949; Philadelphia v. PTC, November 28, 1950 (Chairman Siggins and Commissioner Houck dissented).

265. Philadelphia v. PTC, Pennsylvania Public Utility Commission, September 28, 1949.

266. Philadelphia v. PTC, Pennsylvania Public Utility Commission, November 28, 1950. The closest figure to fair value as adopted is net book cost of $89,428,000, which was rejected as a measure of value in Peoples Natural Gas Co. v. PUC, *supra* note 129 at 485, 34 A.2d at 381.

267. Demands for further wage increases are already being made. See Philadelphia Inquirer, November 30, 1950, p. 10, col. 6.

268. The tariff schedule in the 1950 case was filed on February 10. The decision was handed down exactly eight months and 18 days later.

269. Both the Philadelphia Suburban Transportation Co. and the Philadelphia & Western R. R., which connect with the PTC at the 69th Street Terminal, filed complaints in the 1950 case alleging that the proposed tariff would divert traffic which would normally use their systems and the Market Street Subway-Elevated line of the PTC to private automobiles or other carriers. The implication is that the fare increase will bring about reduced revenues for the PTC as well as the connecting carriers. See also text at note 265 *supra*.

270. Market Street Ry. v. Railroad Commission, 324 U.S. 548, 567 (1945): "The due process clause . . . cannot be applied to . . . restore values that have been lost by the operation of economic forces." The rate base used was $7,950,000, although book value was $41,000,000 and estimated historical cost was $25,000,000.

Most utilities have not as yet been forced to consider the problem. Despite the rise in costs, they enjoy a sufficiently monopolistic position to be able to earn a fair return on their investment and perhaps a bit more. Their revenues must be regulated by law rather than economics, and legal rate regulation calls for a balancing of interests. The Commission has indicated that the policy behind regulation is to make the consumer pay no more than what is just and reasonable.[271] To this end, it has at least twice attempted to use prudent investment, on the theory that the investor's property has not been confiscated if the capital he contributed is kept intact.[272] Twice the Superior Court has refused to accept this interpretation of the act,[273] although it has moved away from reproduction cost in view of the price rise in recent years.[274] Yet the act has never been construed by the Pennsylvania Supreme Court.[275] It is submitted that the interests of the consumer in the present era of high prices demand a further attempt to establish prudent investment, insofar as possible, as the rate-making law of Pennsylvania.

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271. *Cf.* PUC v. Solar Elec. Co., *supra* note 84, at 389-390.

272. Note 83, *supra;* note 125, *supra.*

273. Solar Elec. Co. v. PUC, *supra* note 51; Peoples Natural Gas Co. v. PUC, *supra* note 129.

274. Equitable Gas Co. v. PUC, 160 Pa. Super. 458, 467, 51 A.2d 497, 502 (1947).

275. Review by the Supreme Court is provided for in the Act. PA. STAT. ANN., tit. 66, § 1439 (Purdon, 1941).